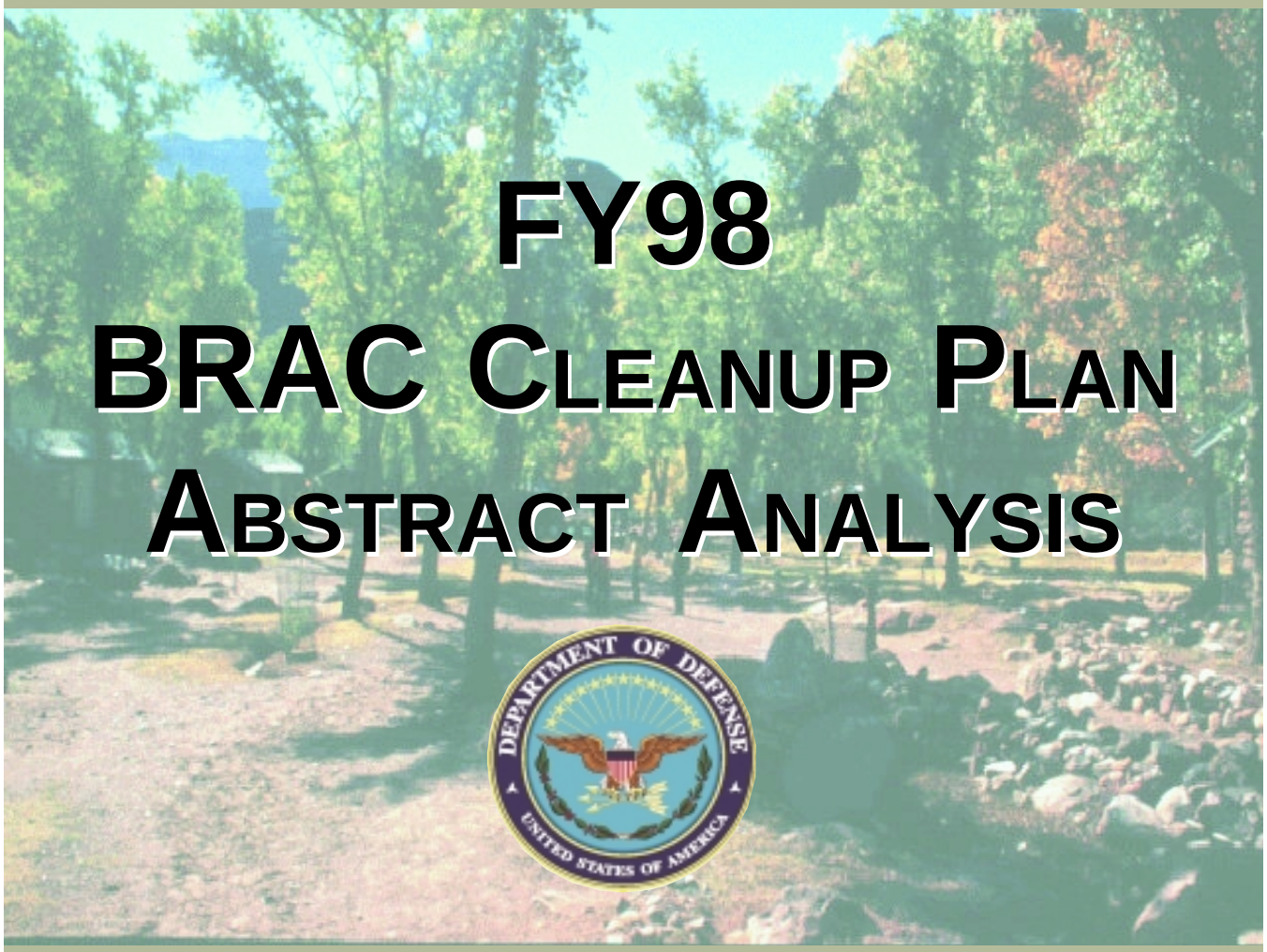


FY98
BRAC Cleanup Plan
Abstract Analysis

August 3, 1999

FY98 BCP Abstract Analysis

This and other documents on the BRAC Environmental Program are available at: *http://www.dtic.mil/envirodod/brac/*

We welcome and invite your comments on this document, as we seek ways to improve the information provided. Please send comments to the following address:

OADUSD (Environmental Cleanup)
Attn: Fast-Track Cleanup
3400 Defense Pentagon
Washington, DC 20301-3400

CONTENTS

TABLES

FIGURES

Acronyms

BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Base Realignment and Closure
BTC	Base Transition Coordinator
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DLA	Defense Logistics Agency
DoD	Department of Defense
EBS	Environmental Baseline Survey
EPA	U.S. Environmental Protection Agency
ETA	Early Transfer Authority
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FY	Fiscal Year
GSA	General Services Administration
HMP	Habitat Management Plan
LRA	Local Redevelopment Authority
LUC	Land Use Control
NCR	Natural and Cultural Resources
NEPA	National Environmental Policy Act
NPL	National Priorities List
POL	Petroleum, Oils, and Lubricants
RAB	Restoration Advisory Board
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RIP	Remedy in Place
RMIS	Restoration Management Information System
RPM	Remedial Project Manager
UXO	Unexploded Ordnance

INTRODUCTION

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) Abstract Analysis for fiscal year 1998 (FY98) summarizes the status of the BRAC environmental restoration program and focuses on the support provided for property reuse at major BRAC installations. The analysis also looks at major trends in the program to determine whether particular issues warrant development of new policies and guidance or whether existing policies need modification. The data for this document come from the Department of Defense's (DoD's) Restoration Management Information System (RMIS) database and the BCP abstract submittals from the Military Components.

The first section of this document presents information on the overall BRAC environmental program, including the restoration status of sites and installations and their progress through the cleanup process. In addition, it describes the various recently developed guidance documents and tools applicable to BRAC installations.

The second section focuses on a smaller group of 112 major installations, which together account for most of the acreage made available for transfer from DoD through the BRAC process. These installations are required to have BRAC Cleanup Teams (BCTs) and BCPs. This section presents an overview of these installations and their environmental and property-transfer status.

The appendixes present more detailed environmental and property transfer information about BRAC installations, including site status, phase durations, and funding. These appendixes provide the backup data to support the summaries and analyses in this report.

BRAC ENVIRONMENTAL PROGRAM OVERVIEW

Environmental restoration and property transfer are integral to the success of the BRAC process. Environmental issues must be understood, addressed, and properly documented before property can be transferred through the property disposal process.

Environmental cleanup is an essential part of BRAC property transfer because all property must meet the requirements set out in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) framework. In most cases, CERCLA requires that "all necessary remedial actions" be taken before property can be transferred from DoD to a non-federal entity.

The National Environmental Policy Act (NEPA) requires federal agencies to evaluate the environmental impacts of all major federal actions, including disposal of closed military facilities. NEPA is a full-disclosure process requiring the identification and evaluation of all relevant data and issues. Property cannot be transferred until a NEPA analysis is completed and a decision made.

In July 1993, President Clinton announced the Community Reinvestment Program to speed the economic recovery of communities affected by the BRAC process. One part of this plan is the fast-track cleanup initiative. The goal of this initiative is to expedite cleanup in support of community reuse efforts by eliminating needless delays in the cleanup process while protecting human health and the environment. Three overriding principles reflect the goals of the President's initiative and fast-track cleanup:

- Protect human health and the environment
- Make property available for reuse and transfer as soon as possible
- Provide for effective community involvement.

Continued effort in support of fast-track cleanup is one way in which DoD is **building trust and doing the right thing.** The keys to the fast-track cleanup initiative are teamwork and partnership with regulators and the community. Early, consistent, and frequent dialogue and coordination are essential to the success of this initiative. The major elements of the fast-track cleanup are:

- The BRAC Cleanup Team (BCT)
- The Restoration Advisory Board (RAB)
- The Finding of Suitability to Transfer (FOST) and Finding of Suitability to Lease (FOSL) processes
- The BRAC Cleanup Plan (the BCT's management tool).

The BCTs carry out fast-track cleanup at selected major BRAC installations, and are the primary forum for addressing issues that affect the execution of cleanup to facilitate reuse. The BCT is composed of the DoD BRAC Environmental Coordinator (BEC) and the U.S. Environmental Protection Agency (EPA) and state remedial project managers (RPMs). The BCT is charged with taking a common sense approach to environmental cleanup by developing common goals and then making decisions and setting priorities based on those goals. Once formed, the BCT conducts an Environmental Baseline Survey (EBS) and performs a "bottom-up review" of the entire

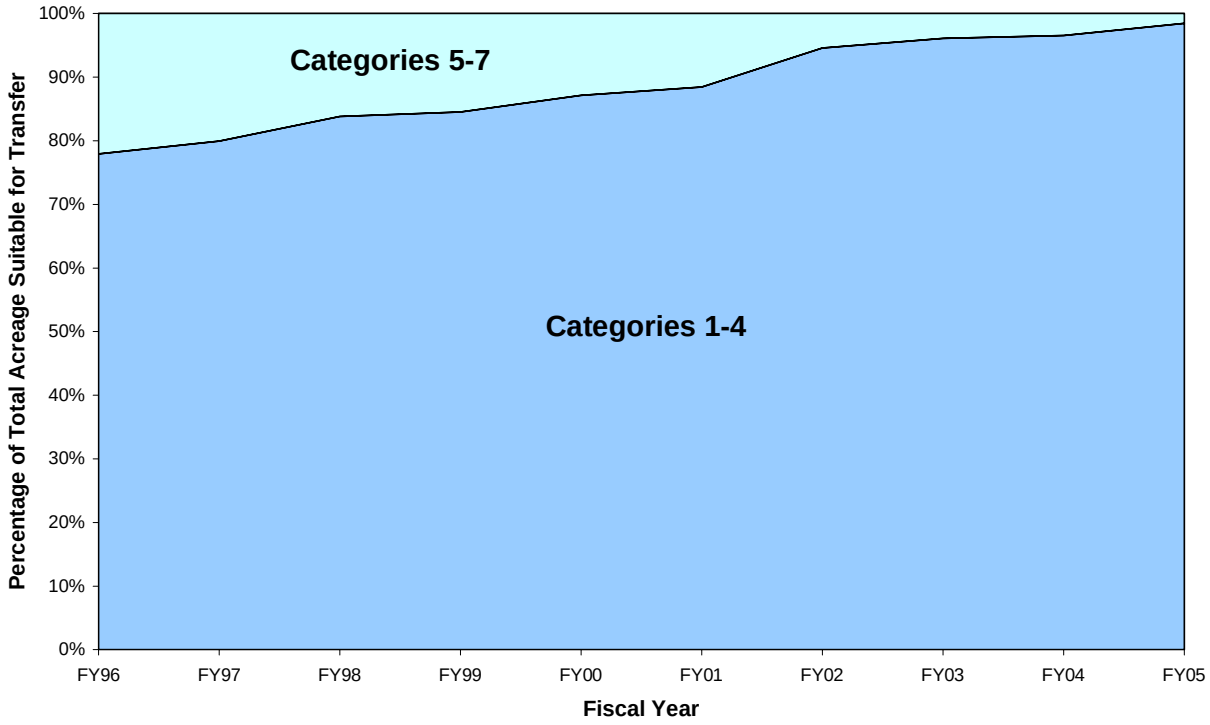
environmental program to determine how best to speed cleanup and make property available for reuse. **The EBS is an important starting point for BRAC cleanup efforts**, since it not only looks at which sites require either further evaluation or cleanup prior to property disposal, but also provides information to the Local Redevelopment Authority (LRA) for its reuse plan efforts.

Partnerships between affected communities and BCTs form the foundation of the cleanup and reuse process. The BCT itself functions as a partnership between DoD personnel and federal and state regulators. The BCT also works with the RAB, which is composed of installation personnel and community members. The RAB provides a forum for discussion and exchange of information about environmental activities among the installation, regulatory agencies, and the community. RABs also provide a conduit for essential public input to the BRAC process. **Working with communities** is an effective way for DoD to carry out its cleanup responsibilities at BRAC installations.

The BCT also works with the Base Transition Coordinator (BTC) and the LRA in preparing the property for transfer. The LRA is the public entity that determines the future use of military installations in its reuse plan and implements the final reuse plan. The partnerships that DoD has formed through fast-track cleanup efforts have proved the most effective means of improving the business of completing cleanup.

The 205 installations where environmental restoration is funded by the BRAC account are collectively transferring about 457,000 acres of land out of DoD. These installations vary in size and are located throughout the United States. Each BRAC round varies in the number of installations selected for closure or realignment, the Components affected, and the acreage to be transferred from DoD to federal and non-federal recipients. Currently, **84% of the acres in the BRAC program meet CERCLA requirements for transfer,** and that percentage will steadily increase to nearly 100% by the end of FY05, as shown in Figure 1. The acres that the environmental program is currently addressing (environmental condition of property categories 5 to 7) must still undergo environmental investigation and/or cleanup. These acres (16% of the total acres leaving DoD), however, can also be transferred by deed while environmental restoration work is going on using the early transfer authority. Note: The seven environmental condition of property categories are described in Appendix A and are treated in greater detail in the Major BRAC Installations section of this document.

Figure 1. Acres Available for Transfer According to CERCLA



ENVIRONMENTAL RESTORATION PROCESS

DoD manages environmental restoration activities at its installations through a process of identifying, remediating, and closing sites. A site is a discrete area (or parcel) on an installation where cleanup actions or the investigation of possible contamination is under way. In most instances, there are many sites at an installation.

In the CERCLA framework, a site is either in investigation or cleanup, or is *response complete* (RC). The first step in the environmental restoration process is identification, in which a site is identified as containing contamination or requiring investigation. Upon identification, each new site enters an *investigation* phase. If this phase determines that cleanup activities must occur to protect human health and the environment, DoD documents the basis for the decision that cleanup activities are required by establishing cleanup objectives and selecting cleanup technologies in a *Record of Decision*. Sites requiring cleanup then move into a *cleanup* phase. Sites in the investigation or cleanup phase are said to be *in-progress*. A site may require operation of a selected remedy for some time before it reaches the cleanup objectives; the site is categorized as *remedy in place (RIP)* with completion of construction and testing of the selected remedy. When all intended cleanup activities at a site are complete, or if cleanup is not necessary, the site moves to the RC phase. After a site achieves RC, it may require long-term monitoring and five-year reviews by DoD to confirm the accomplishment of cleanup objectives and to determine suitability for site closeout. This cleanup process is outlined in Figure 2.

Figure 2. Cleanup Process Phases and Milestones

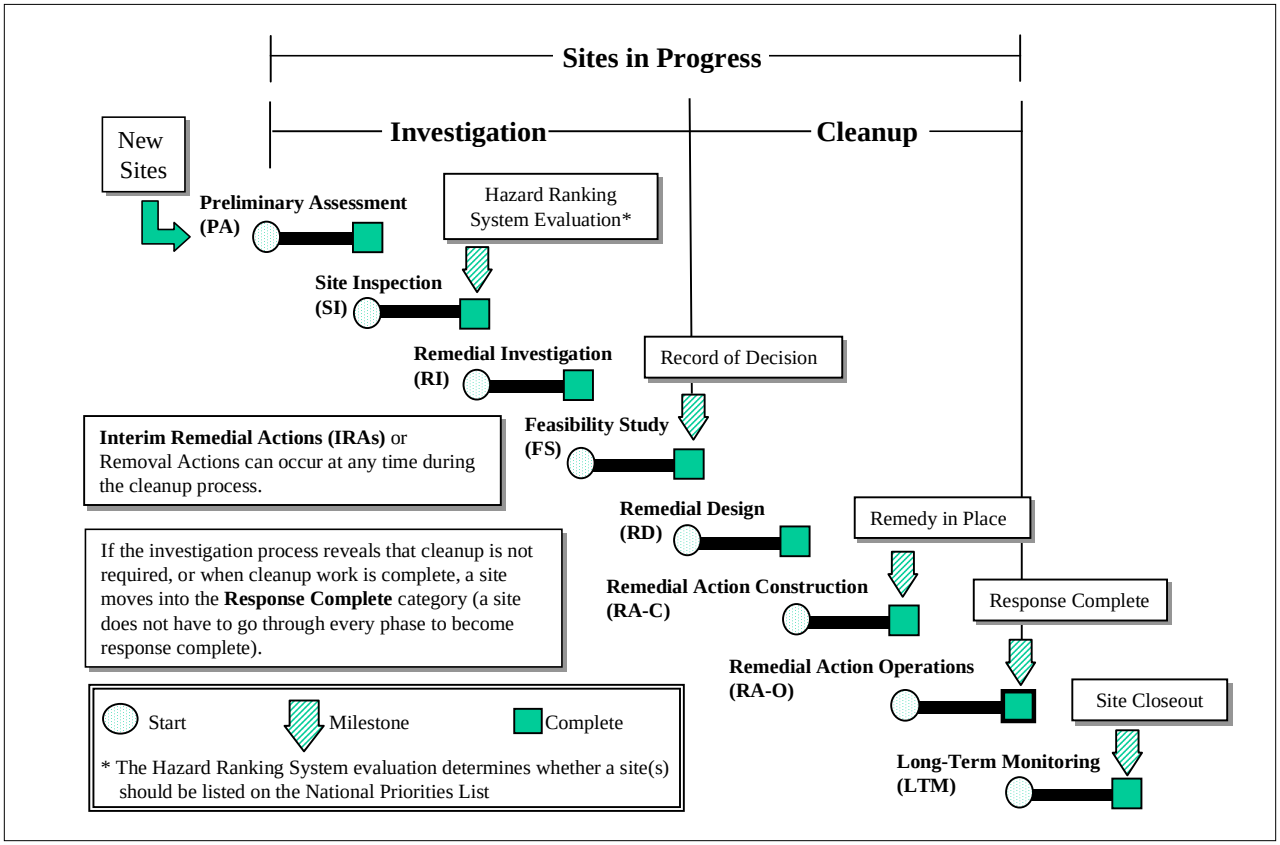


Figure 3 shows the current site phase status (the number of sites in each restoration phase). As this figure shows, **45% of BRAC sites have reached RIP/RC**. The focus of BRAC environmental efforts is on the remaining "in-progress" sites. These remaining sites are located on the 16% of BRAC acres slated for transfer from DoD that are in categories 5 to 7.

Figure 3. FY98 BRAC Site Status

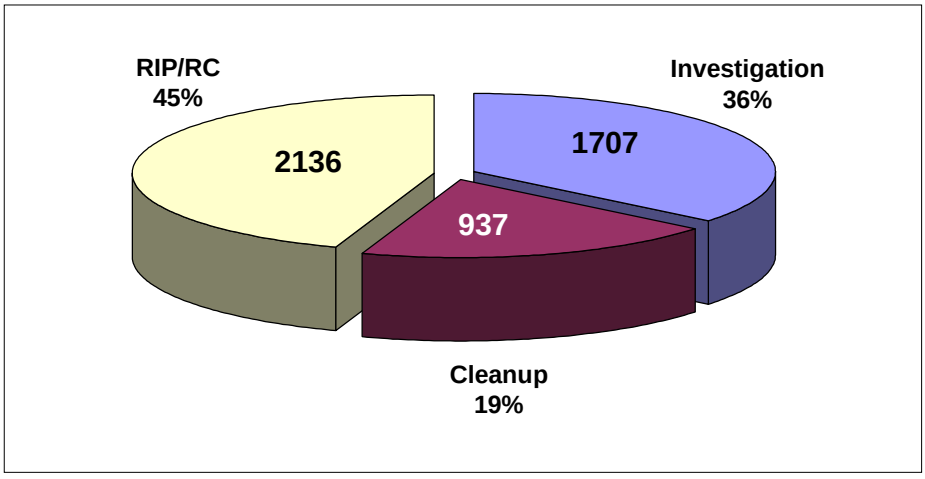
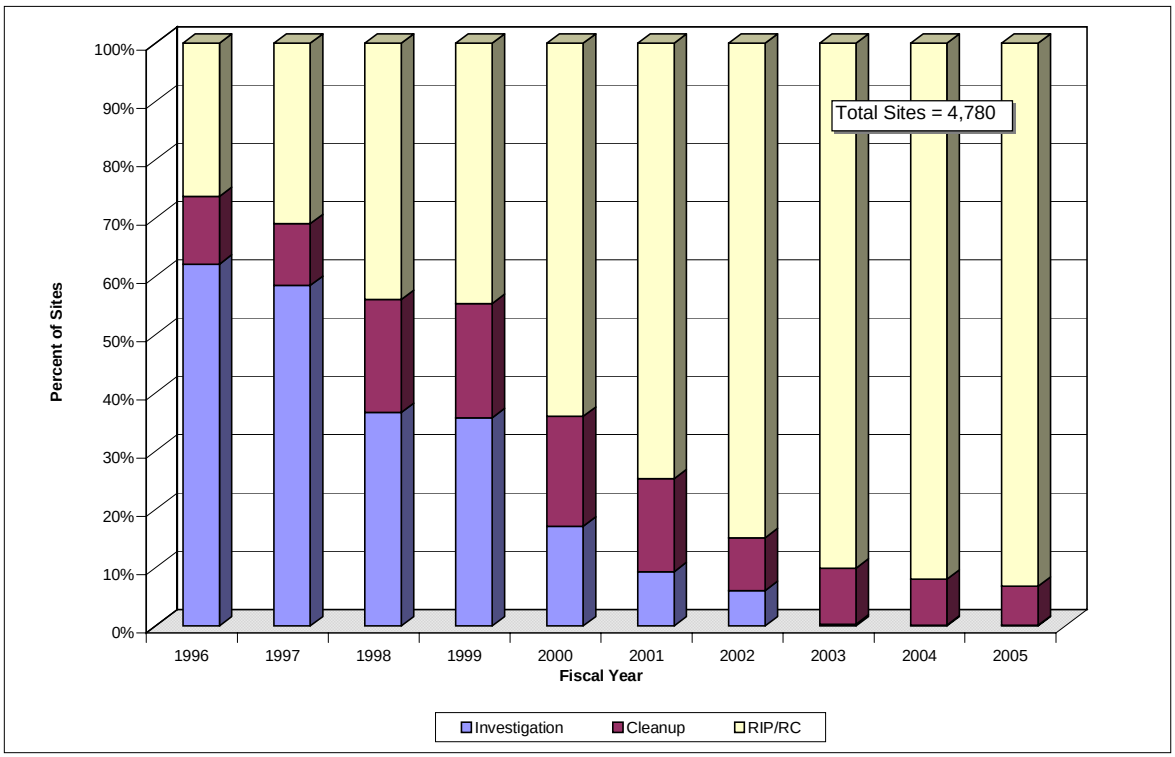


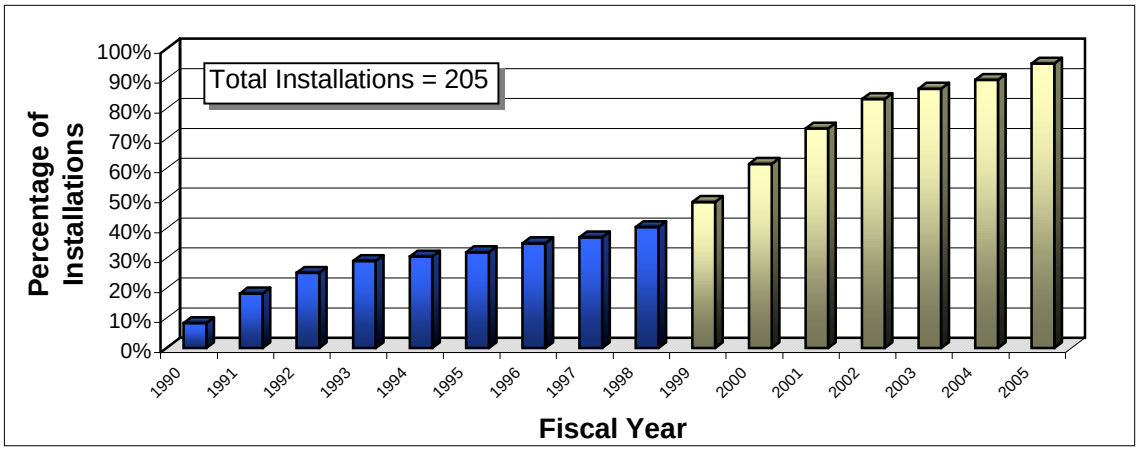
Figure 4 illustrates site phase progress over time, with the number of sites in investigation gradually decreasing and the number of sites reaching RIP/RC increasing. All sites will complete the investigation phase by FY03, and almost 100% of the installations will have all sites in RIP/RC by FY05. Figure 5 shows the percentage of installations achieving RIP/RC over time. The percentage of installations and sites achieving RIP/RC will more than double in the next six years.

Figure 4. Phase Progress of Sites From FY96 to FY05



The number of installations reaching RIP/RC does not directly correspond to the number of sites reaching RIP/RC each year since one site can hold up an entire installation's achievement of installationwide RIP/RC. Table B4 (Appendix B) lists the installations that will achieve RIP/RC after FY05 and the number of sites at each of these installations. Of the nine installations on this list, five will have only one site that has not reached RIP/RC by the end of FY05.

Figure 5. Installations Achieving RIP/RC (cumulative FY90 through FY05)



Expediting the Cleanup Process at Cecil Field Naval Air Station Jacksonville, Florida

Cecil Field Naval Air Station uses the following techniques to expedite the cleanup process:

- *Increasing concurrent activities*
- *Reducing document review time*
- *Performing a monthly review of all sites*
- *Using a document review tracking system to ensure timely review of documents*
- *Developing a database for meeting minutes, action items, and decisions.*

This final step ensures timely tracking and completion of action items, as well as providing easy access to information on previous decisions.

The fast-track cleanup initiative has had a measurable impact on environmental restoration efforts at BRAC installations. One principle of fast-track cleanup is to make property available for reuse and transfer as soon as possible. Comparison of cleanup at active and BRAC installations shows that cleanup is being finished faster at BRAC installations than at active installations. Figures 6 and 7 show the average phase durations for sites at BRAC and active installations, respectively. **These figures illustrate that each phase takes less time to complete at BRAC installation sites than at active installation sites.** Instead of the 15 years it takes to go through the cleanup process at active installations, it takes 10 years at BRAC installations—a one-third reduction in time. (Appendix C provides additional phase duration graphs, showing BRAC and active installation phase durations by Component.)

Figure 6. BRAC, Average Site Phase Durations

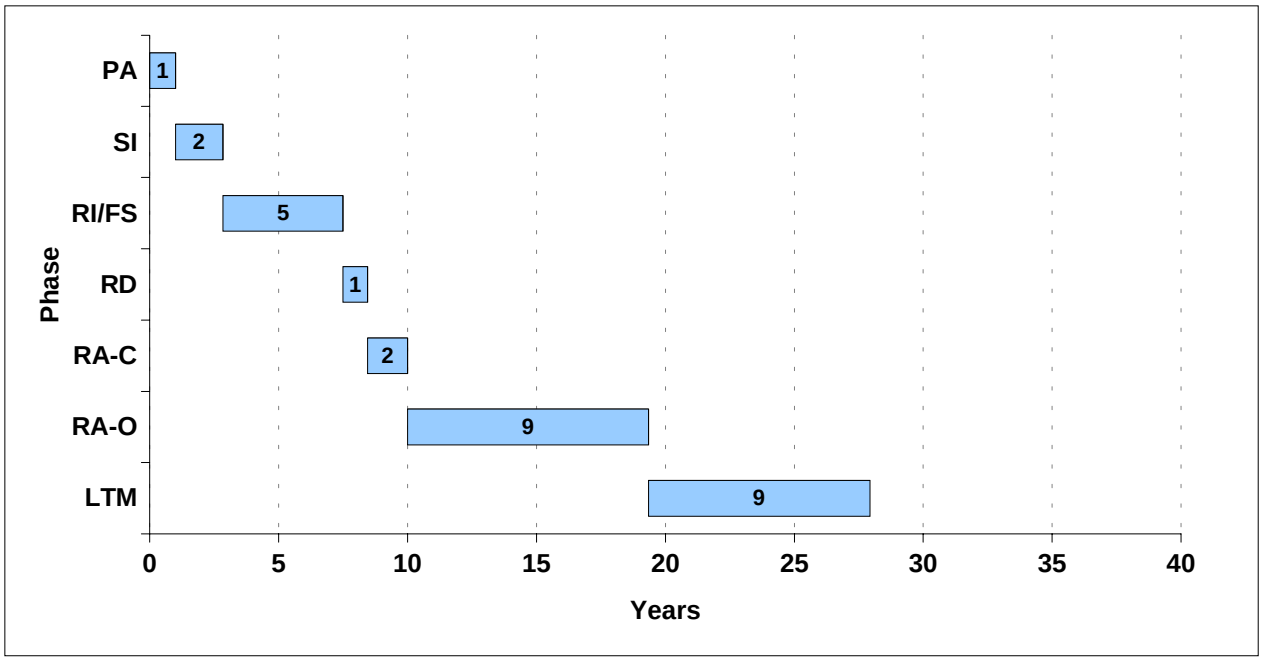
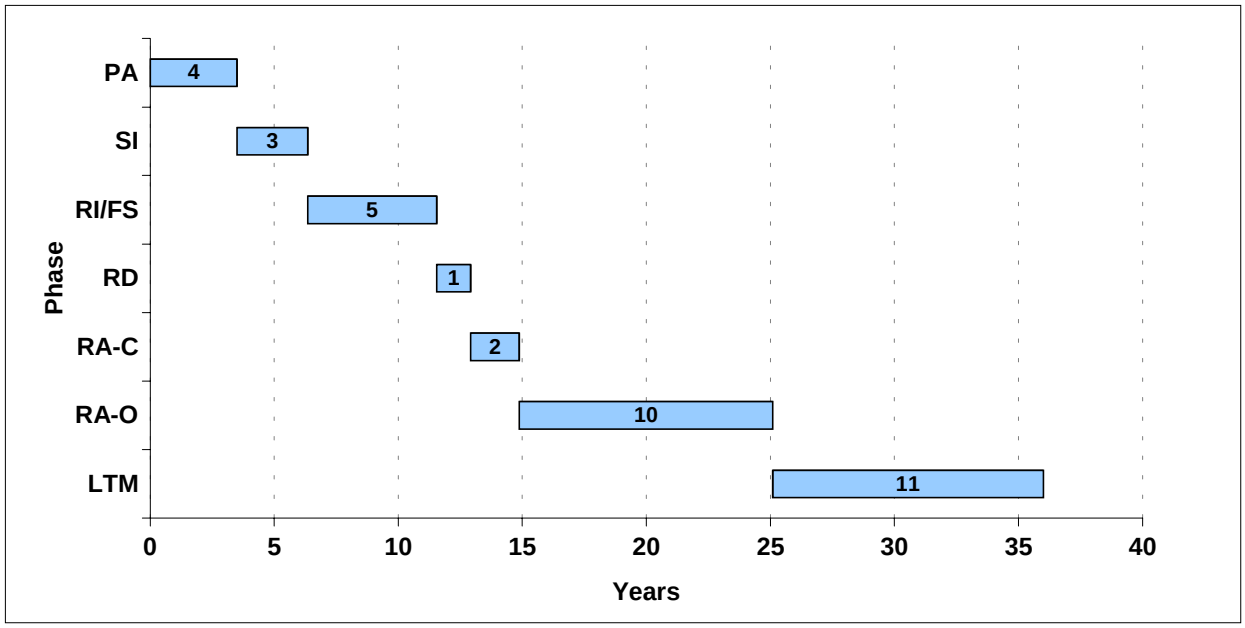


Figure 7. Active-Installations, Average Site Phase Durations



FY98 GUIDANCE AND INITIATIVES

During FY98, DoD developed policy, guidance, and tools that significantly expedited environmental cleanup and supported property transfer. Information on these efforts, policies, guidance, and tools is provided below. Most documents listed here are available on the BRAC website at http://www.dtic.mil/envirodod/brac.

Early Transfer Authority (ETA)

A September 1996 amendment to CERCLA allows federal agencies to transfer property before all necessary remedial actions have been taken. To implement this new initiative, DoD gave the Components written guidance on the process and the documentation needed to obtain the finding of suitability required for the early transfer of DoD property. Key guidance documents are:

- "Guidance on the Environmental Review Process to Obtain the Finding of Suitability Required for Use of Early Transfer Authority for Property Not on the National Priorities List," signed on 24 April 1998
- *EPA Guidance on the Transfer of Federal Property by Deed Before All Necessary Response Action Has Been Taken Pursuant to CERCLA 120(h)(3),* 16 June 1998. This guidance was developed by an EPA-led interagency work group that included DoD, the Department of Energy, and the General Services Administration (GSA). The guidance establishes the process EPA will use to review requests for early transfers at National Priorities List (NPL) sites.
- *Early Transfer Authority*, BRAC Environmental Fact Sheet, printed spring 1998.

Land Use Controls

- *A Guide to Establishing Institutional Controls at Closing Military Installations,* February 1998. This guide describes different types of land use controls and recommends a process framework for developing land use controls for different restoration and reuse alternatives.

Site Closeout

Now that many installations' cleanup efforts are reaching completion, DoD is considering the requirements for completing and documenting the closeout of sites once cleanup objectives have been met and other environmental responsibilities are fulfilled.

- *Interim Guide: The Environmental Site Closeout Process,* November 1998. The interagency Environmental Site Closeout Work Group, led by the Air Force Base Conversion Agency, developed this guide during FY98. DoD has issued this as an interim document for use before finalization. The interim document describes a framework and provides tools, based on existing regulations and requirements for environmental restoration beyond remedy selection, to help installation-level users through the site closeout process. The guide describes a flexible framework that installations can adapt to develop an installation-specific and a site-specific closeout strategy. (This guide can be accessed via the World Wide Web at http://www.afbca.hq.af.mil/closeout/)

BCT Workshops

DoD sponsored three regional BCT Workshops in 1998. Each of the three workshops provided an informative main session along with several concurrent tracks focusing on technology, site closeout, cleanup, and policy topics, and an introduction to BRAC for participants new to the BRAC process. Attendees also participated in facilitated discussions that allowed for communication among BCT members and sharing of lessons learned. These workshops provided a valuable forum where BCTs could learn about environmental cleanup policies, study new technical approaches, share lessons learned, and interact with their regional counterparts as well as with headquarters representatives from DoD and EPA.

Management Guidance

In March 1998, DoD issued the *Management Guidance for the Defense Environmental Restoration Program*. This document provides guidance, procedures, and responsibilities for the environmental restoration program at active and closing installations. This completely updated guidance contains new sections on relative risk, performance measures, relationships with regulatory agencies, formerly used defense sites, and the Federal Facilities Environmental Restoration Dialogue Committee recommendations.

CERCLA/RCRA (Resource Conservation and Recovery Act)

CERCLA/RCRA Overlap in Environmental Cleanup, BRAC Environmental Fact Sheet, spring 1998. This fact sheet is a tool that BCTs can use to integrate the two regulatory frameworks for environmental restoration at BRAC installations. The fact sheet presents an overview of these two environmental laws, highlights their differences and similarities, and describes scenarios in which each would be used.

National Priorities List

National Priorities List Reform: A More Flexible Approach for Federal Facilities, BRAC Environmental Fact Sheet, spring 1998. This fact sheet summarizes developments in EPA's NPL policy that affect DoD and explains the procedure for deleting portions of NPL sites. Formerly, an entire facility had to be cleaned up before it could be deleted from the NPL.

LOOKING TO FY99

Many efforts to develop policy, guidance documents, and other tools began in FY98 and are targeted for completion in FY99:

Land Use Controls

DoD has been working on guidance documents to provide an overall DoD-framework for implementing, recording and annotating, and managing land use controls both for surplus real property being transferred out of federal control and for active installations.

Lead-Based Paint

Building on work done in FY98, DoD and EPA reached an agreement on managing lead-based paint in residential and nonresidential areas at BRAC properties. A joint DoD/EPA memo signed March 17, 1999, transmits agreements between DoD and EPA on lead-based paint and provides a schedule for completing actions that the agencies agreed to undertake jointly. DoD and EPA also have been working with GSA and the Department of Housing and Urban Development to prepare a field guide on ways to address lead-based paint at residential property. This *Lead-Based Paint Guidelines for Disposal of Residential Property: A Field Guide* is expected to be issued in summer 1999.

BRAC Cleanup Plans

Updating the BRAC Cleanup Plan: A Living Tool For Integrating Reuse and Cleanup, BRAC Environmental Fact Sheet, spring 1999. This fact sheet assists a BCT in updating the BCP so it can remain a living tool for managing environmental restoration efforts. The fact sheet identifies:

- Specific sections that should be updated every 9 to 18 months
- Tools for coordinating and exchanging information with the LRA
- The Base Transition Coordinator's role as facilitator and coordinator.

UXO

Unexploded Ordnance (UXO), BRAC Environmental Fact Sheet, spring 1999. This fact sheet provides a general overview of the UXO clearance and process requirements.

In FY99, DoD will continue to develop policies and tools to facilitate and expedite the cleanup process in areas such as site closeout and five-year reviews.

MAJOR BRAC INSTALLATIONS

Of the 205 total BRAC installations, 112 are considered major installations, which contain the bulk of the BRAC program's environmental sites and acreage. These 112 major installations are together transferring 444,253 acres out of DoD — that is, 97% of all acres to be transferred. These installations have BCTs that prepare BCPs. A breakdown of these 112 installations by BRAC round and by Component appears in Table 1 and is listed in Appendix A. Figures 8 and 9 show the breakdown of the combined acreage of these installations by Component and by BRAC round.

Property transfer is the end goal for the BRAC process. According to the FY98 BCP abstracts, only 12% of the property at these 112 major installations has been transferred. A noteworthy accomplishment in FY98 is that DoD executed more deed transfers than leases per acre, achieving its ultimate goal of disposing of the property.

The remainder of this analysis focuses on these 112 major installations and is divided into three main sections: overview, environmental issues, and support for transfer and reuse. In addition, the appendixes provide detailed information summarizing the end of FY98 data from the BCP abstracts submitted by the Components.

Table 1. Breakdown of BRAC Installations by Component and BRAC Round

	Number of Installations				
BRAC Round	**Army**	**Navy**	**Air Force**	**DLA**	**Total**
I (1988)	11	3	5	–	**19**
II (1991)	5	9	14	–	**28**
III (1993)	3	19	5	2	**29**
IV (1995)	20	10	4	2	**36**
Total	**39**	**41**	**28**	**4**	**112**

Figure 8. Acres to Transfer Out, by Component

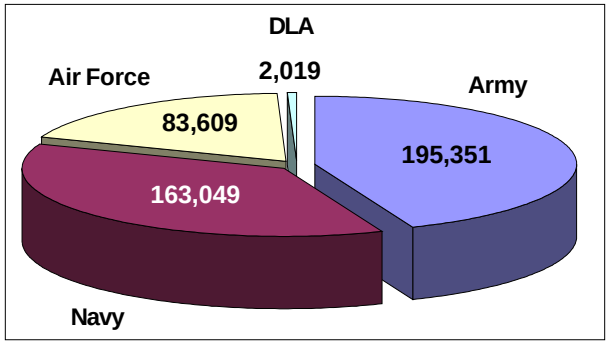
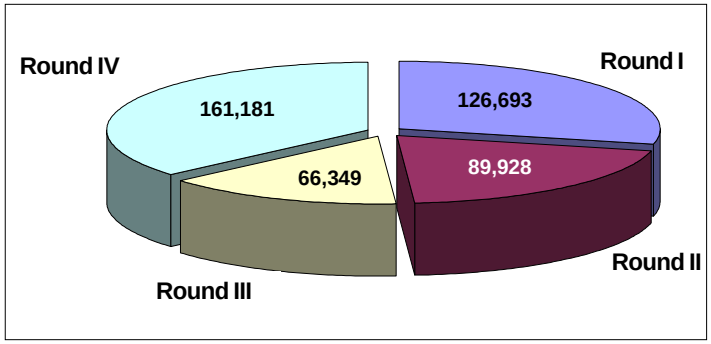


Figure 9. Acres to Transfer Out by BRAC Round



OVERVIEW

Major Installations: At A Glance

Of the 112 installations in this analysis

- *101 have RABs; 5 RABs for fast-track installations have been adjourned.*
- *35 installations — 30% of all BRAC bases — are on the NPL.*
- *The 35 BRAC installations on the NPL contain 71% of the acres to be transferred out of DoD.*
- *38% of all BCP abstracts have been reviewed by all BCT members.*
- *97% of Army abstracts have been reviewed by all BCT members.*

The BCP is the document that summarizes all environmental requirements for a BRAC installation and integrates reuse drivers. This document is a major tool for managing the environmental cleanup at BRAC installations. The BCT produces the BCP and is responsible for updating sections regularly to reflect new requirements in the cleanup program, changes in the reuse requirements, and changes in the schedule.

Review of BCP abstracts by all BCT members indicates a high level of participation in the BCT partnership and reflects "ownership" of the installation cleanup program by the entire BCT. Overall, in FY98, only a third of the abstracts were reviewed by all BCT members, indicating that more work is needed to keep BCTs working together to support cleanup and reuse. The Army, however, did quite well in this regard, with almost all BCPs reviewed by all BCT members.

Partnership at C.E. Kelly Support Facility (Army) Oakdale, Pennsylvania

C.E. Kelly Support Facility has achieved full BCT participation. The team includes both state and federal regulators in all project scoping meetings, thereby obtaining direct agency input on the design of field programs. This practice has prevented communication problems and mitigated concerns about sample methodologies and data quality objectives before the start of the formal document review. This practice also resulted in the elimination of at least one field-season of investigation (estimated to cost $250,000) and allowed a seamless review of technical documents. The BCT also set detailed program objectives, which allowed the Army to reduce the estimated cost-to-complete by more than $500,000 at C.E. Kelly since the first year of the BRAC program.

Component guidance varies on how frequently the BCP should be updated. Currently, the average age of BCPs is 17 months, and the number of BCPs updated increased from 67% in FY97 to 77% in FY98. Although the 10% increase is encouraging, this statistic is cumulative, including all revisions made to a BCP after the initial submission. The low number updated in FY98, particularly for the Navy and the Air Force, indicates that more work needs to be done. The DoD Environmental Security Office produced a fact sheet this year highlighting sections of the BCP that BCTs should update regularly to keep the BCP a "living document." The information provided in this fact sheet should make it easier for BCTs to keep the BCPs updated.

Of the 112 installations included in this analysis, 35 are on the NPL. EPA is the lead regulator for BRAC installations on the NPL, while the state is the lead regulator for BRAC installations not on the NPL. In certain instances, regulators must concur in specific cleanup decisions before a transfer can occur. Without this concurrence, the process cannot move forward toward completion.

Table A3 in Appendix A details progress in updating BCPs. Table A2 lists the installations on the NPL.

ENVIRONMENTAL

Environmental Restoration Issues

Major Installations: Environmental Overview

- *84% of the acres planned for transfer from DoD are in Environmental Condition of Property categories 1 to 4, indicating that the CERCLA environmental requirement for transfer of the property can be met.*
  - *95% of the acres in BRAC Round I are in categories 1 to 4.*
- *The breakdown of property categories for NPL installation acres is as follows:*
  - ***81%** in categories 1 to 4*
  - ***11%** in categories 5 to 6*
  - **8%** in category 7.
- *The breakdown of property categories for non-NPL installation acres is as follows:*
  - ***86%** in categories 1 to 4*
  - ***6%** in categories 5 to 6*
  - ***8%** in category 7.*

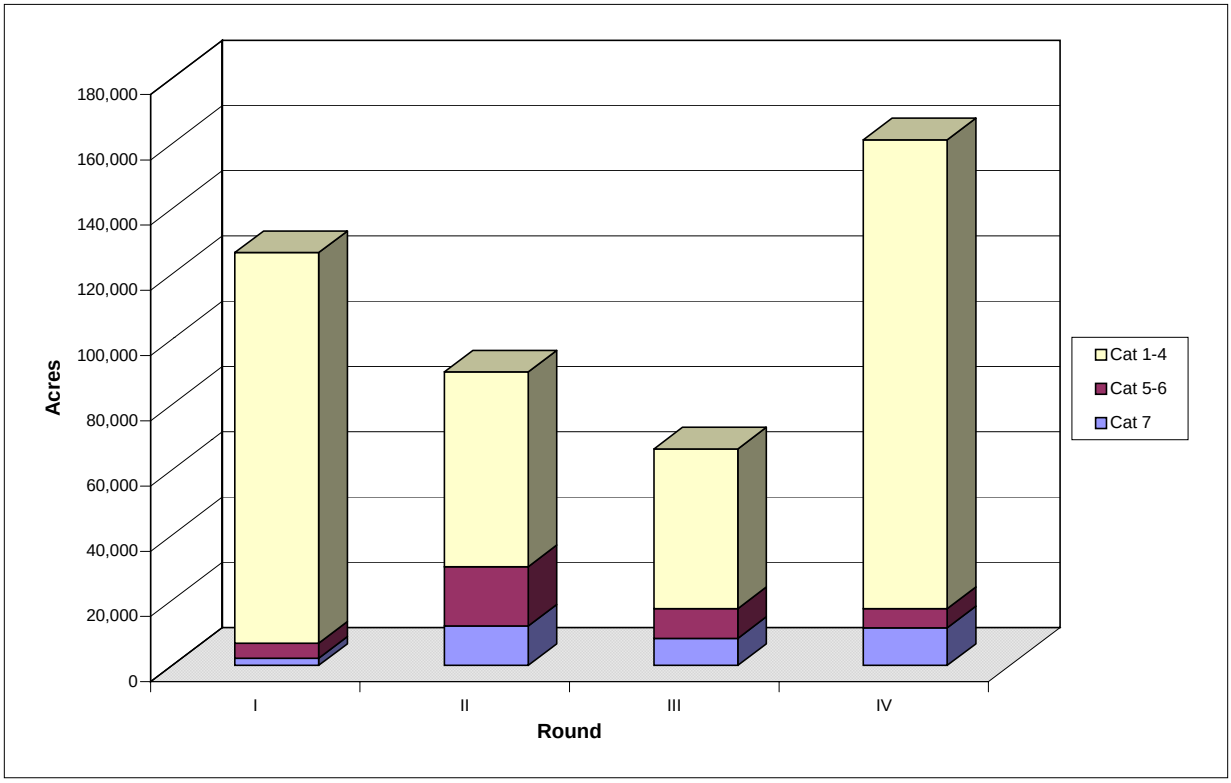
DoD uses seven environmental condition of property categories to manage environmental restoration efforts and support reuse. Acres in categories 1 to 4 are available for transfer under CERCLA, while acres in categories 5 to 7 need additional cleanup or evaluation.

The results of the Environmental Baseline Survey are used to identify uncontaminated property for transfer (this property must meet very strict requirements, more stringent than CERCLA transfer requirements). DoD then proposes to the regulators that the property formally be considered uncontaminated so that it will be "CERCLA ready" for transfer as "clean property." This proposal must be made within 18 months of the installation's BRAC listing. In order for property to be transferred as uncontaminated (category 1), regulators must concur with DoD's proposal of uncontaminated property.

As sites move through investigation and remediation, property progresses from categories 5 to 7 (cleanup not completed / additional evaluation required) to categories 2 to 4 (suitable for transfer). Acres in categories 5 to 7 are still in some phase of environmental cleanup, or more information is required; these acres are available either for lease or for transfer through ETA.

Figure 10 shows the number of acres in categories 1 to 7, by BRAC round. The figure illustrates that the majority of the acres are in categories 1 through 4, meaning that property meets CERCLA requirements for transfer. As can also be seen from figure 10, round IV has the largest number of acres in categories 1 to 4 (32% of all acres slated for transfer), followed by round I with 27% of all acres slated for transfer. Table A4 breaks down BRAC acreage by Environmental Condition of Property categories.

Figure 10. Environmental Condition of Property Categories for Fast-Track Acreage by BRAC Round



Since the start of the BRAC fast-track program, the acreage in categories 5 to 7 has been steadily decreasing, while acreage in categories 1 to 4 has steadily increased. Table 2 shows the change in categories 5 to 7 over the past 2 years.

Table 2. Change in Category 5, 6, and 7 Acres from FY96 to FY98

Category	Category Description	Acreage Change FY96–FY97	Acreage Change FY97–FY98	Current Acreage
5	Cleanup action started	-8,658	2,886	13,688
6	Cleanup action identified but not started	-502	-1,558	24,076
7	Unevaluated/More information needed	-14,785	-16,991	34,160
Total		**-23,945**	**-12,777**	**71,924**

NOTE: A negative number indicates a decrease in acres from one year to the next.

Major Installations: Non-CERLA Issues

- *UXO affects almost **27%** of all acres to be transferred out of DoD and more than **57%** of Army acres to be transferred.*
- *NCR impacts **11%** of all acres to be transferred from DoD.*
- *POL is a significant issue at Defense Logistics Agency (DLA) installations, affecting more than **24%** of the DLA acres to be transferred. POL affects less than **2%** of total acres to be transferred from DoD.*
- ***71%** of acres are available for transfer when non-CERCLA issues are considered.*

Other Environmental Issues

Environmental and safety issues other than CERCLA can also affect property at BRAC installations, including:

- Petroleum, oils, and lubricants (POL)
- Unexploded Ordnance (UXO)
- Natural and cultural resources (NCR).

The combined total of acres affected by POL, UXO, and NCR is higher than the total number of acres affected by non-CERCLA environmental issues because acreage affected by these various problems may overlap. For example, acres with POL and UXO present are included in both categories and thus counted twice. Acres affected by these issues may also overlap CERCLA sites.

Table A5 shows the breakdown of BRAC acres according to non-CERCLA environmental issues. Table A6 presents the acres that are available for transfer under CERCLA (categories 1 to 4) and the acres available for transfer when non-CERCLA issues are considered (this number is based on the BCTs judgment). This table indicates that non-CERCLA issues encumber 14% of acres to be transferred.

Management of abandoned munitions and contaminated ranges is a major challenge for DoD. UXO on transferring ranges poses a potential risk to public safety, health, and the environment. DoD is committed to taking appropriate measures to adequately control these risks in a manner that protects human safety and the environment. DoD's Environmental Security Office recently produced a UXO fact sheet to serve as a tool for BCTs and others needing information on the UXO clearance process. UXO is a complex issue that requires cooperative efforts with stakeholders. DoD has made considerable progress in resolving many of the overarching issues. To meet the challenges posed by UXO, DoD must develop guidance that will provide a comprehensive framework for addressing UXO cleanup. DoD is placing more emphasis in management of UXO clearance by realigning the funding for UXO from a compliance expense to the restoration account (more information on UXO funding can be found in Appendix D).

Success with Natural Resources at Fort Ord (Army) Monterey, California

Fort Ord is home to approximately half of all Maritime Chaparral (low evergreen scrub vegetation) in existence, as well as 23 special-status animal species and 22 special status plant species. The Army plays a role in implementing the Fort Ord Habitat Management Plan (HMP), which provides for no net loss of population or habitat for any of the HMP subject species and preserves biodiversity. The Fort Ord HMP received Outstanding Environmental Resource Document recognition by the Association of Environmental Professionals.

SUPPORTING TRANSFER AND REUSE

Major Installations: Property Transfers

- *The actual acres transferred and leased is **132,004** acres, **30%** of the total acres to be transferred out of DoD.*
- *DoD has transferred **12%** of the acres, and has leased **18%**.*
- *To date, three BRAC "early transfers" have been signed, with others in progress.*

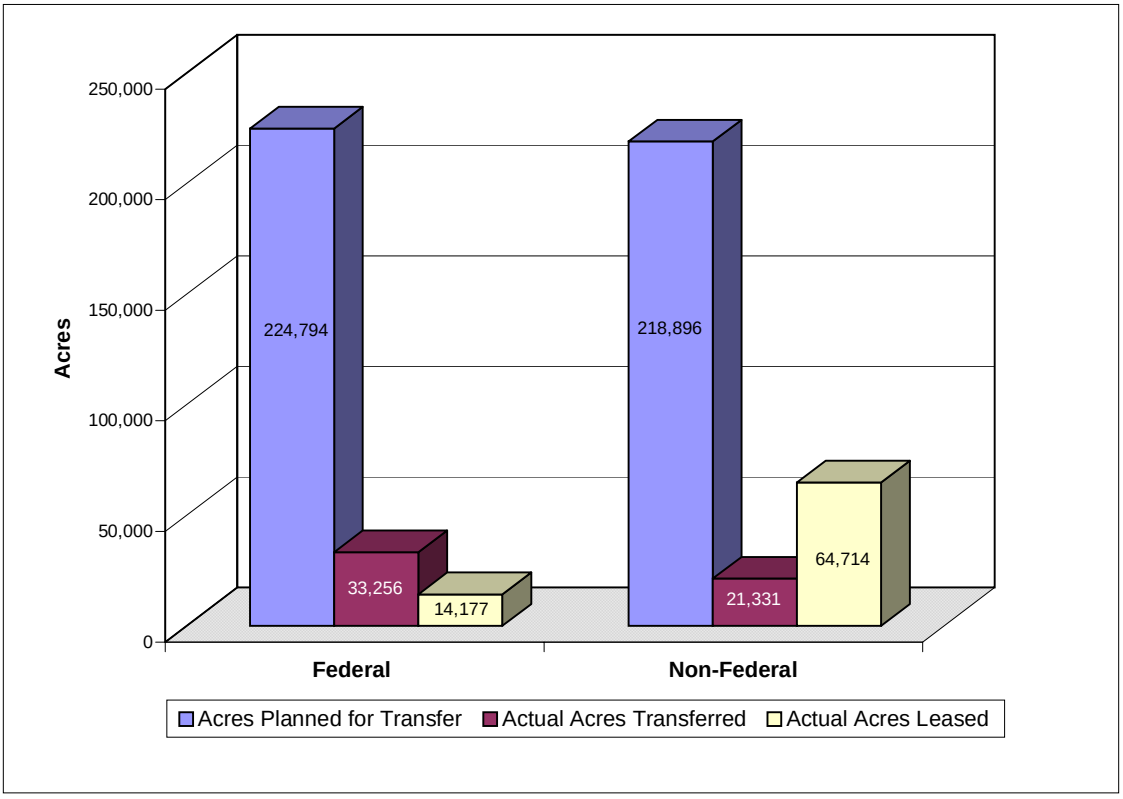
Transfer and Lease

Although 84% of the acres to be transferred out of DoD are environmentally suitable for transfer under CERCLA, DoD has succeeded in transferring only 12% of these acres. There may, however, be factors other than CERCLA (i.e., market demand) preventing or impeding actual transfer. As shown in Figure 11, half of the acres to be transferred out of DoD are planned for transfer to other federal agencies.

In the past, property has been successfully put into reuse through leases rather than transfers by deed. **This year, however, DoD transferred 46% more acres than last year and also leased 13% fewer acres compared to FY97.**

Table A7 provides a breakdown of acres transferred and leased. A comparison of FY97 and FY98 transfer and lease data is presented in Table A8.

Figure 11. Comparison of Acres Planned for Federal and Non-Federal Transfer and Acres Actually Transferred and Leased



The early Transfer Authority is a tool that enables communities to obtain surplus property quickly. Grissom Air Force Base completed the first early transfer in FY97, and four more ETAs were completed in FY98. Table 3 profiles the installations that had early transfer's approved in FY98.

Table 3. FY98 Early Transfer Property

Component	Installation	NPL Status	BRAC Status
Navy	Bristol NWIRP	Non-NPL	Non-BRAC
Air Force	Mather AFB	NPL	Round I
Navy	Fridley NIROP	NPL	Non-BRAC
Army	Tooele AD	NPL	Round III

DoD has other early transfers planned for FY99. Of particular note is an early transfer planned for FY99 in which the Navy's Oakland Fleet and Industrial Supply Center will be transferred to the Port of Oakland. This early transfer is breaking new ground because the recipient will also be assuming cleanup responsibility and will finish the cleanup.

Finding of Suitability to Transfer and Finding of Suitability to Lease

Major Installations: FOSTs and FOSLs

- *By the end of FY98, the DoD Components combined have completed **299** FOSTs for **71,185** acres (**16%** of all acres to be transferred)*
  - Percentages of FOST completion by Component are as follows: Army, **12%**; Navy, **17%**; Air Force, **21%**; DLA, **6%**.
- *DoD completed **67** FOSTs and **105** FOSLs in FY98.*
- *For FY99, DoD anticipates completing **367** FOSTs, accounting for **68,017** acres, and **120** FOSLs, accounting for **14,905** acres.*

The transfer or lease of real estate is a significant step in the overall BRAC reuse process. FOSTs and FOSLs are the link between the environmental and the real estate processes. As cleanups are completed, more property becomes available for transfer and the primary issue becomes reuse and transfer of the property. The BCTs support reuse efforts by making property available for transfer and preparing FOSTs and FOSLs to document environmental suitability. While each FOST is an accomplishment, it is the total number of acres transferred out of DoD that indicates the success for the BRAC process as a whole.

Table 4 shows the number of FOSTs and FOSLs completed in FY96, FY97, and FY98, as well as the total acreage transferred or leased in those years. Tables A9 and A10 contain more detailed FOST and FOSL information.

Table 4. FY96, FY97, and FY98 FOSTs and FOSLs*

	Completed by FY96	Completed by FY97	Completed by FY98
# FOSTs	120	232	299
FOST Acres	18,379	43,480	71,185
# FOSLs	770	1,367	1,472
FOSL Acres	51,141	68,631	79,271

*Numbers are cumulative

The FY98 BCP abstract data show that a smaller number of FOSTs and FOSLs were completed in FY98 than were previously targeted, as shown in Table 4. The BCP abstract narratives cite no one reason for this discrepancy, but general explanations include:

- Changes in reuse requirements or schedules
- Overly optimistic projections by BCTs
- Unexpected regulatory concerns
- Additional reuse requirements identified by other federal agencies
- Non-CERCLA issues.

BCTs must continue to work together, not only to fulfill CERCLA requirements, but also to complete FOSTs and FOSLs and support property transfer and reuse.

Working Together to Complete FOSTs
Wurtsmith AFB, Oscoda, Michigan

At Wurtsmith Air Force Base, the BCT worked as a team to identify which property within the housing area could be transferred by deed to the Township of Oscoda. After a Remedial Investigation determined the locations of contaminated groundwater plumes, the BCT and LRA removed these areas from the proposed transfer. Completion of this FOST allowed the immediate transfer of the residential property where no further CERCLA work was required, while enabling the BCT to continue cleaning up the contaminated groundwater plume. This cooperative approach resulted in the rapid completion of the second FOST for the housing area, which was the highest priority for the township.

Reuse Plans/National Environmental Policy Act

Property disposal requires compliance with NEPA requirements, which may involve Records of Decision for environmental impact statements or findings of no significant impact upon completion of environmental assessments. Completion of NEPA requirements is not related to the property's CERCLA cleanup status. In the BRAC disposal process, however, completion of the NEPA requirements is closely related to the development of the reuse plan. The *Base Reuse Implementation Manual* provides a goal of completing any required NEPA analysis no later than 12 months after the LRA submits its adopted final reuse plan. Since cleanup is tied to reuse, finalization of these reuse plans is also a critical step to providing land use assumptions for the cleanup process. Of the 112 installations in this analysis, 72% have final reuse plans. Table 5 summarizes the status of reuse plans by BRAC round.

Table 5. Status of Reuse Plans by BRAC Round

Round	# Required	# Complete	% Complete
I	16	16	100.00%
II	26	25	96.15%
III	27	25	92.59%
IV	31	23	74.19%

Over half of the installations completed the NEPA process within the 12-month time frame, while 75% of the installations completed NEPA within 2 years of submission of the reuse plan. **The Air Force and DLA completed NEPA requirements at all of their BRAC installations by the end of FY98, while the Army completed NEPA requirements at all of their BRAC Round I and Round II installations by the end of FY98.**

Tables A11, A12, and A13, respectively, provide detailed information on NEPA completion, the status of reuse plans, and NEPA completion in relation to reuse plan completion.

CONCLUSION

The BRAC program has come a long way since the first BRAC round in 1988 and the initiation of fast-track cleanup in 1993. DoD has worked to establish a strong fast-track cleanup policy framework that allows for flexible, site-specific implementation at each installation. Continued efforts with EPA and state regulatory agencies in support of fast-track cleanup are one way in which **DoD is building trust by doing the right thing**.

The data and this analysis show that the fast-track cleanup initiative have made a difference. Each phase of the BRAC process proceeds more quickly under fast-track, allowing property to be available for transfer as soon as possible. Eighty-four percent of BRAC acres are available for transfer under CERCLA. Environmental requirements have been completed at 45% of sites, with remaining sites on track to be cleaned up by FY05 and all investigations planned for completion by FY03.

Since the cleanup and transfer processes are interdependent, continued close cooperation among DoD cleanup and real estate personnel, federal and state regulators, and communities is essential to integrating reuse with cleanup. Partnerships have played an important role in the BRAC program thus far and will continue to be vital to future successes.

Appendix A
BCP Data Summary

(Data comes from the 112 installations that provide BCP abstracts)

Table A1. Installations Included in FY98 BCP Abstracts

	Army	Navy	Air Force	DLA	Total
Round I	ARL-Watertown Cameron Station Fort Meade Fort Sheridan Fort Wingate Hamilton AAF Jefferson PG Lexington Presidio SF Pueblo Umatilla	Brooklyn Philadelphia NH Salton Sea	Chanute George Mather Norton Pease		**19**
Round II	ARL-Woodbridge Fort Benj. Harrison Fort Devens Fort Ord Sacramento	Chase Field Davisville Hunter's Pt. Long Beach NS Moffett NAS Philadelphia NC Sand Point Tustin Warminster NAWC	Bergstrom Carswell Castle Eaker England Griffiss Grissom Loring Lowry Myrtle Beach Richards-Gebaur Rickenbacker Williams Wurtsmith		**28**
Round III	Fort Monmouth Tooele North Vint Hill Farms	Agana Alameda Barbers Point Cecil Field Charleston NC Dallas Driver El Toro Glenview Mare Island Memphis Midway Oakland NH Orlando NTC San Diego NTC San Francisco Staten Island Treasure Island Trenton NAWC	Homestead K.I. Sawyer March Newark Plattsburgh	DPSC Philadelphia Gentile AFS	**29**

Table A1. Installations Included in FY98 BCP Abstracts (Continued)

	Army	Navy	Air Force	DLA	
Round IV	Bayonne Bonneville Detroit ATP Fitzsimons Fort Chaffee Fort Dix Fort Greely Fort McClellan Fort Pickett Fort Ritchie Fort Totten Hingham Annex Letterkenny Oakland Red River Savanna Seneca Sierra Stratford AEP Sudbury Training	Adak Guam Indianapolis Long Beach Louisville New London Oakland FISC Point Molate South Weymouth White Oak	Kelly McClellan Reese Roslyn	Memphis Depot Ogden Depot	**36**
Total	**39**	**41**	**28**	**4**	**112**

Table A2. Installations on the NPL

	Round I	Round II	Round III	Round IV	Total
Army	Fort Meade Umatilla Watertown ARL	Fort Devens Fort Ord Sacramento	Tooele	Letterkenny Savanna Seneca Sudbury Annex	**10**
Navy		Davisville Hunters Point Moffett Warminster	Cecil Field NAS El Toro MCAS	Adak South Weymouth	**8**
Air Force	George AFB Mather AFB Norton AFB Pease AFB	Castle AFB Griffiss AFB Loring AFB Rickenbacker AFB Williams AFB Wurtsmith AFB	Homestead AFB March AFB Plattsburgh AFB	McClellan AFB	**14**
DLA				Memphis Ogden	**2**
Total	**7**	**12**	**6**	**10**	**35**

Table A3. Progress Made in Updating BRAC Cleanup Plans

	Number of Plans Updated	Number of Plans Updated in FY98	% of Plans Updated	Average Age of Plan in Months (as of 10/98)
Army (39 Installations)	**24**	**5**	**61.54%**	**26**
Round I (11 Installations)	11	1	100.00%	31
Round II (5 Installations)	5	1	100.00%	19
Round III (3 Installations)	3	0	100.00%	39
Round IV (20 Installations)	5	3	26.32%	17
Navy (41 Installations)	**29**	**0**	**70.73%**	**13**
Round I (3 Installations)	2	0	66.67%	24
Round II (9 Installations)	7	0	77.78%	11
Round III (19 Installations)	17	0	89.47%	8
Round IV (10 Installations)	3	0	30.00%	8
Air Force (28 Installations)	**18**	**1**	**64.29%**	**29**
Round I (5 Installations)	3	1	60.00%	33
Round II (14 Installations)	11	0	78.57%	34
Round III (5 Installations)	3	0	60.00%	29
Round IV (4 Installations)	1	0	33.33%	19
DLA (4 Installations)	**4**	**3**	**100.00%**	**4**
Round I (0 Installations)	–	–	–	–
Round II (0 Installations)	–	–	–	–
Round III (2 Installations)	2	1	100.00%	9
Round IV (2 Installations)	2	2	100.00%	0
Service Totals	**49**	**9**	**66.96%**	**21**
Round I (19 Installations)	16	2	84.21%	29
Round II (28 Installations)	23	1	82.14%	21
Round III (29 Installations)	25	1	86.21%	21
Round IV (36 Installations)	11	5	32.35%	11

Table A4. Status of FY98 Environmental Condition of Property Categories and Percent Change from FY97

	Total Installation Acres	Acres to Transfer Out of DoD	FY97 Categories 1-4	FY98 Categories 1-4	% FY97-FY98	% of Acres to be Transferred	FY97 Categories 5-6	FY98 Categories 5-6	% FY97-FY98	FY97 Category 7	FY98 Category 7	% FY97-FY98
Army	**1,140,766**	**195,351**	**152,549**	**167,128**	**9.56%**	**85.55%**	**15,291**	**15,394**	**0.67%**	**26,654**	**12,829**	**-51.87%**
Round I	137,826	87,975	85,308	85,359	0.06%	97.03%	1,866	1,795	-3.80%	801	821	2.50%
Round II	40,676	35,013	18,774	18,779	0.03%	53.63%	10,520	10,520	0.00%	5,152	5,714	10.91%
Round III	26,160	2,616	935	1,145	22.46%	43.77%	87	87	0.00%	1,379	1,384	0.36%
Round IV	936,104	69,747	47,532	61,845	30.11%	88.67%	2,818	2,992	6.17%	19,322	4,910	-74.59%
Navy	**198,382**	**163,049**	**141,355**	**142,840**	**1.05%**	**87.61%**	**7,983**	**8,750**	**9.61%**	**14,743**	**11,459**	**-22.27%**
Round I	19,479	19,479	19,526	19,479	-0.24%	100.00%	8	0	-100.00%	0	0	
Round II	14,282	13,850	10,368	10,851	4.66%	78.35%	2,519	2,365	-6.11%	509	634	24.56%
Round III	65,860	48,422	32,966	35,401	7.39%	73.11%	5,163	6,215	20.38%	9,643	6,806	-29.42%
Round IV	98,761	81,298	78,495	77,109	-1.77%	94.85%	293	170	-41.98%	4,591	4,019	-12.46%
Air Force	**95,821**	**83,609**	**57,978**	**60,810**	**4.88%**	**72.73%**	**12,607**	**13,545**	**7.44%**	**9,131**	**9,254**	**1.35%**
Round I	19,413	19,117	14,971	14,951	-0.13%	78.21%	3,008	2,800	-6.91%	1,509	1,366	-9.48%
Round II	46,806	41,065	24,752	30,032	21.33%	73.13%	4,772	5,330	11.70%	4,195	5,702	35.92%
Round III	18,217	15,063	10,988	12,248	11.46%	81.31%	2,646	2,791	5.49%	1,429	24	-98.30%
Round IV	11,385	8,364	7,267	3,579	-50.75%	42.79%	2,181	2,624	20.29%	1,998	2,162	8.21%
DLA	**2,019**	**2,019**	**1,031**	**1,419**	**37.62%**	**70.28%**	**122**	**125**	**2.39%**	**596**	**475**	**-20.26%**
Round I	–	–	–	–	–	–	–	–	–	–	–	–
Round II	–	–	–	–	–	–	–	–	–	–	–	–
Round III	248	248	154	202	30.85%	81.30%	0	0	–	94	46	-50.71%
Round IV	1,771	1,771	1,147	1,217	6.14%	68.73%	122	125	2.39%	502	429	-14.56%
Service Totals	**1,436,989**	**444,028**	**353,183**	**372,197**	**5.38%**	**83.82%**	**36,003**	**37,814**	**5.03%**	**51,124**	**34,017**	**-33.46%**
Round I	176,718	126,571	119,805	119,789	-0.01%	94.64%	4,882	4,595	-5.88%	2,310	2,187	-5.32%
Round II	101,764	89,928	53,894	59,662	10.70%	66.34%	17,811	18,215	2.27%	9,856	12,050	22.26%
Round III	110,485	66,349	45,043	48,995	8.77%	73.84%	7,896	9,093	15.16%	12,545	8,261	-34.15%
Round IV	1,048,021	161,181	134,441	143,750	6.92%	89.19%	5,414	5,910	9.17%	26,413	11,520	-56.39%

Table A5. Acres Affected by Non-CERCLA Environmental Issues*

	Total Installation Acres	Acres to Transfer out of DoD	POL	% POL Affected	UXO	% UXO Affected	NCR	% NCR Affected
Army	**1,140,766**	**195,351**	**2,950**	**1.51%**	**111,935**	**57.30%**	**34,567**	**17.69%**
Round I	137,826	87,975	1,410	1.60%	64,365	73.16%	1,390	1.58%
Round II	40,676	35,013	975	2.78%	15,533	44.36%	23,470	67.03%
Round III	26,160	2,616	30	1.15%	0	0.00%	30	1.15%
Round IV	936,104	69,747	535	0.77%	32,037	45.93%	9,677	13.87%
Navy	**198,382**	**163,049**	**1,903**	**1.17%**	**4,973**	**3.05%**	**9,919**	**6.08%**
Round I	19,479	19,479	4	0.02%	1,113	5.71%	3,504	17.99%
Round II	14,282	13,850	135	0.97%	0	–	43	0.31%
Round III	65,860	48,422	925	1.91%	983	2.03%	6,078	12.55%
Round IV	98,761	81,298	839	1.03%	2,877	3.54%	294	0.36%
Air Force	**95,821**	**83,609**	**3,412**	**4.08%**	**852**	**1.02%**	**5,762**	**6.89%**
Round I	19,413	19,117	946	4.95%	329	1.72%	192	1.00%
Round II	46,806	41,065	1,942	4.73%	499	1.22%	2,567	6.25%
Round III	18,217	15,063	519	3.45%	24	0.16%	2,347	15.58%
Round IV	11,385	8,364	5	0.06%	0	0.00%	656	7.84%
DLA	**2,019**	**2,019**	**475**	**23.53%**	**8**	**0.41%**	**143**	**7.06%**
Round I	–	–	–	–	–	–	–	–
Round II	–	–	–	–	–	–	–	–
Round III	248	248	55	22.19%	0	–	87	34.90%
Round IV	1,771	1,771	420	23.71%	8	0.46%	56	3.16%
Service Totals	**1,436,989**	**444,028**	**8,740**	**1.97%**	**117,768**	**26.52%**	**50,532**	**11.38%**
Round I	176,718	126,571	2,360	1.86%	65,807	51.99%	5,086	4.02%
Round II	101,764	89,928	3,052	3.39%	16,032	17.83%	26,221	29.16%
Round III	110,485	66,349	1,529	2.30%	1,007	1.52%	8,542	12.87%
Round IV	1,048,021	161,181	1,799	1.12%	34,922	21.67%	10,683	6.63%

NOTE: The combined total of acres affected by POL, UXO, and NCR is higher than the total acres affected by non-CERCLA issues because acreage affected by these various problems may overlap.

Table A6. Comparison of Category 1 to 4 Acres and Acres Available for Transfer Taking Non-CERCLA Issues Into Account

	Total Installation Acres	Acres to Transfer out of DoD	FY98 Categories 1-4	Acres Available for Transfer*	% of Acres to Transfer out of DoD
Army	**1,140,766**	**195,351**	**161,931**	**113,637**	**58.17%**
Round I	137,826	87,975	85,702	32,225	36.63%
Round II	40,676	35,013	13,175	18,779	53.63%
Round III	26,160	2,616	1,182	1,145	43.77%
Round IV	936,104	69,747	61,872	61,488	88.16%
Navy	**198,382**	**163,049**	**147,862**	**137,368**	**84.25%**
Round I	19,479	19,479	22,770	19,471	99.96%
Round II	14,282	13,850	10,043	10,365	74.84%
Round III	65,860	48,422	37,943	30,982	63.98%
Round IV	98,761	81,298	77,106	76,550	94.16%
Air Force	**95,821**	**83,609**	**67,932**	**58,579**	**70.06%**
Round I	19,413	19,117	14,446	14,305	74.83%
Round II	46,806	41,065	37,478	30,051	73.18%
Round III	18,217	15,063	12,429	10,878	72.21%
Round IV	11,385	8,364	3,579	3,346	40.00%
DLA	**2,019**	**2,019**	**1,328**	**1,429**	**70.80%**
Round I	–	–	–	–	–
Round II	–	–	–	–	–
Round III	248	248	221	211	85.14%
Round IV	1,771	1,771	1,107	1,218	68.79%
Service Totals	**1,436,989**	**444,028**	**379,053**	**311,014**	**70.04%**
Round I	176,718	126,571	122,918	66,001	52.15%
Round II	101,764	89,928	60,696	59,195	65.83%
Round III	110,485	66,349	51,775	43,216	65.13%
Round IV	1,048,021	161,181	143,664	142,602	88.47%

*While category 1 to 4 acres are transferable under CERCLA, the number of acres available for transfer is based on the BCTs judgement that there may be non-CERCLA environmental issues that might be addressed in the property transfer.

Table A7. Acres Leased and Transferred

	Total Installation Acres	Acres to Transfer out of DoD	Actual Acres Leased to Federal Entity	Actual Acres Leased to Non-Federal Entity	Total Acres Leased	Actual Acres Transferred to Federal Entity	Actual Acres Transferred to Non-Federal Entity	Total Acres Transferred
Army	**1,140,766**	**195,351**	**0**	**9,666**	**9,666**	**17,752**	**4,902**	**22,654**
Round I	137,826	87,975	0	4,211	4,211	9,580	544	10,124
Round II	40,676	35,013	0	2,056	2,056	8,102	4,227	12,329
Round III	26,160	2,616	0	2,291	2,291	0	41	41
Round IV	936,104	69,747	0	1,107	1,107	70	90	160
Navy	**198,382**	**163,049**	**13,519**	**12,527**	**26,046**	**12,018**	**7,174**	**19,192**
Round I	19,479	19,479	6	0	6	4,700	3,305	8,005
Round II	14,282	13,850	5,611	5,458	11,069	4,017	894	4,911
Round III	65,860	48,422	3,472	2,786	6,258	2,526	2,975	5,501
Round IV	98,761	81,298	4,430	4,283	8,713	775	0	775
Air Force	**95,821**	**83,609**	**641**	**41,252**	**41,893**	**3,486**	**9,147**	**12,633**
Round I	19,413	19,117	20	15,761	15,781	2,063	777	2,840
Round II	46,806	41,065	480	21,669	22,149	1,027	8,154	9,181
Round III	18,217	15,063	141	3,574	3,715	370	216	586
Round IV	11,385	8,364	0	248	248	26	0	26
DLA	**2,019**	**2,019**	**17**	**1,269**	**1,286**	**0**	**108**	**108**
Round I	–	–	–	–	–	–	–	–
Round II	–	–	–	–	–	–	–	–
Round III	248	248	17	48	65	0	108	108
Round IV	1,771	1,771	0	1,221	1,221	0	0	0
Service Totals	**1,436,989**	**444,028**	**14,177**	**64,714**	**78,891**	**33,256**	**21,331**	**54,587**
Round I	176,718	126,571	26	19,972	19,998	16,343	4,626	20,969
Round II	101,764	89,928	6,091	29,183	35,274	13,146	13,275	26,421
Round III	110,485	66,349	3,630	8,699	12,329	2,896	3,340	6,236
Round IV	1,048,021	161,181	4,430	6,860	11,290	871	90	961

Table A8. Comparison of Leased and Transferred Acres FY97 to FY98

	Total Installation Acres	Acres to Transfer Out of DoD	Total Acres Leased FY97	Total Acres Leased FY98	% Change FY97-FY98	Total Acres Transferred FY97	Total Acres Transferred FY98	% Change FY97-FY98
Army	**1,140,766**	**195,351**	**7,907**	**9,666**	**22.25%**	**20,995**	**22,654**	**7.90%**
Round I	137,826	87,975	4,430*	4,211	-4.94%	9,746	10,124	3.88%
Round II	40,676	35,013	1,700	2,056	20.96%	11,136	12,329	10.71%
Round III	26,160	2,616	1,659	2,291	38.11%	41	41	0.00%
Round IV	936,104	69,747	118	1,107	838.51%	72	160	122.22%
Navy	**198,382**	**163,049**	**23,880**	**26,046**	**9.07%**	**9,103**	**19,192**	**110.83%**
Round I	19,479	19,479	13,749	6	-99.96%	5	8,005	160000.00%
Round II	14,282	13,850	5,665	11,069	95.39%	4,090	4,911	20.07%
Round III	65,860	48,422	3,583	6,258	74.66%	4,270	5,501	28.83%
Round IV	98,761	81,298	883	8,713	886.75%	738	775	5.01%
Air Force	**95,821**	**83,609**	**46,713**	**41,893**	**-10.32%**	**7,187**	**12,633**	**75.78%**
Round I	19,413	19,117	16,000	15,781	-1.37%	2,661	2,840	6.73%
Round II	46,806	41,065	21,915	22,149	1.07%	3,767	9,181	143.73%
Round III	18,217	15,063	5,001	3,715	-25.71%	238	586	146.22%
Round IV	11,385	8,364	3,797	248	-93.47%	521	26	-95.01%
DLA	**2,019**	**2,019**	**1,219**	**1,286**	**5.47%**	**75**	**108**	**43.60%**
Round I	–	–	–	–	–	–	–	–
Round II	–	–	–	–	–	–	–	–
Round III	248	248	97	65	-33.47%	75	108	43.60%
Round IV	1,771	1,771	122	1,221	900.95%	0	0	–
Service Totals	**1,436,989**	**444,028**	**89,241**	**78,891**	**-11.60%**	**37,360**	**54,587**	**46.11%**
Round I	176,718	126,571	43,701	19,998	-54.24%	12,412	20,969	68.94%
Round II	101,764	89,928	29,280	35,274	20.47%	18,993	26,421	39.11%
Round III	110,485	66,349	10,340	12,329	19.24%	4,624	6,236	34.86%
Round IV	1,048,021	161,181	5,920	11,290	90.70%	1,331	961	-27.80%

* Pueblo is currently leasing 9,522 acres of property, but due to the Chemical Demilitarization operation, Pueblo does not have any acres identified as excess to DoD at this point.

Table A9. FOST/FOSL Transactions and Acreage Transfers and Leases Completed (through FY98) and Anticipated (FY99)

	Acres to Transfer Out of DoD	FOSTs Completed	FOST Acres Completed	Percentage Acres to be Transferred	FOSLs Completed	FOSL Acres Completed	FOSTs Anticipated	FOST Acres Anticipated	FOSLs Anticipated	FOSL Acres Anticipated
Armv	**195.351**	**101**	**24.805**	**12.70%**	**58**	**9.977**	**59**	**26.373**	**18**	**5.348**
Round I	87,975	15	10,344	11.76%	8	4,211	6	6,526	2	283
Round II	35,013	75	13,443	38.39%	11	2,056	26	12,301	1	1
Round III	2,616	1	41	1.57%	13	2,291	5	2,575	0	0
Round IV	69,747	10	977	1.40%	26	1,419	22	4,971	15	5,064
Navy	**163.049**	**60**	**28.325**	**17.37%**	**1.045**	**17.936**	**212**	**23.346**	**43**	**962**
Round I	19,479	4	19,454	99.87%	1	6	1	29	0	0
Round II	13,850	21	3,812	27.52%	53	4,834	15	4,053	7	19
Round III	48,422	31	4,364	9.01%	977	8,683	189	18,586	23	758
Round IV	81,298	4	695	0.85%	14	4,413	7	678	13	185
Air Force	**83.609**	**134**	**17.931**	**21.41%**	**358**	**51.376**	**90**	**17.532**	**57**	**8.141**
Round I	19,117	56	4,014	20.86%	44	16,092	19	4,126	0	158
Round II	41,065	67	13,311	32.41%	169	27,003	60	11,461	6	1,144
Round III	15,063	11	606	4.02%	121	6,769	10	1,895	25	1,333
Round IV	8,364	0	0	0.00%	24	1,512	1	50	26	5,506
DLA	**2.019**	**4**	**125**	**6.17%**	**11**	**1.456**	**6**	**766**	**2**	**455**
Round I	–	–	–	–	–	–	–	–	–	–
Round II	–	–	–	–	–	–	–	–	–	–
Round III	248	4	125	50.20%	3	172	3	48	1	76
Round IV	1,771	0	0	0.00%	8	1,284	3	719	1	379
Service Totals	**444.028**	**299**	**71.185**	**16.03%**	**1.472**	**80.745**	**367**	**68.017**	**120**	**14.905**
Round I	126,571	75	33,812	26.71%	53	20,309	26	10,681	2	441
Round II	89,928	163	30,566	33.99%	233	33,893	101	27,815	14	1,164
Round III	66,349	47	5,136	7.74%	1,114	17,915	207	23,104	49	2,167
Round IV	161,181	14	1,672	1.04%	72	8,628	33	6,418	55	11,134

Table A10. FOST/FOSL FY97 Projections and Completions and FY98 Completions

	FOST Complete by FY97	FOST Complete in FY98	FOST Projected for FY98	% FOST Projected Complete	FOST Complete by FY98	FOSL Complete by FY97	FOSL Complete in FY98	FOSL Projected for FY98	% FOSL Projected Complete	FOSL Complete by FY98
Army	74	27	52	51.92%	101	50	8	19	42.11%	58
Navy	41	19	99	19.19%	60	1,004	41	37	110.81%	1,045
Air Force	116	18	142	12.68%	134	307	51	97	52.58%	358
DLA	1	3	5	60.00%	4	6	5	2	250.00%	11
Total	**232**	**67**	**298**	**22.48%**	**299**	**1,367**	**105**	**155**	**67.74%**	**1,472**

Table A11. NEPA Completion

	NEPA Complete Through FY97	FY97 % NEPA Complete	NEPA Complete Through FY98	FY98 % NEPA Complete
Army (39 Installations)	**16**	**41.03%**	**30**	**76.92%**
Round I (11 Installations)*	9	81.82%	9	81.82%
Round II (5 Installations)	5	100.00%	5	100.00%
Round III (3 Installations)	1	33.34%	3	100.00%
Round IV (20 Installations)	1	5.00%	13	65.00%
Navy (41 Installations)	**13**	**31.71%**	**21**	**51.22%**
Round I (3 Installations)	1	33.00%	2	66.67%
Round II (9 Installations)	5	55.56%	6	66.67%
Round III (19 Installations)	6	31.58%	8	42.11%
Round IV (10 Installations)	1	10.00%	5	50.00%
Air Force (28 Installations)	**26**	**92.86%**	**28**	**100.00%**
Round I (5 Installations)	5	100.00%	5	100.00%
Round II (14 Installations)	11	100.00%	14	100.00%
Round III (5 Installations)	4	80.00%	5	100.00%
Round IV (4 Installations)	6	85.71%	4	100.00%
DLA (4 Installations)	**2**	**50.00%**	**4**	**100.00%**
Round I (0 Installations)	–	–	–	–
Round II (0 Installations)	–	–	–	–
Round III (2 Installations)	1	50.00%	2	100.00%
Round IV (2 Installations)	1	50.00%	2	100.00%
Service Totals	**57**	**50.89%**	**83**	**74.11%**
Round I (19 Installations)	15	78.95%	16	84.21%
Round II (28 Installations)	21	84.00%	25	89.29%
Round III (29 Installations)	12	41.38%	18	62.07%
Round IV (36 Installations)	9	23.08%	24	66.67%

* The two NEPA analyses not completed at Army BRAC I installations are for Pueblo and Umatilla. Final implementation of BRAC decisions at these two installations are in abeyance until the completion of the chemical demilitarization missions. Final BRAC disposal NEPA documentation will be prepared after conclusion of the chemical demilitarization program.

** The number of NEPA Complete Air Force installations for FY97 is greater than the total number in FY98 because two installations were counted in the BRAC Round IV in FY97 and in BRAC Round II in FY98.

Table A12. Status of Reuse Plans

	Not Needed	No Interest	Drafting Plan	Plan Drafted	LRA Approve	HUD Approve	Data not Available	Complete	% Complete
Army (39 Installations)	**5**	**0**	**2**	**3**	**27**	**2**	**0**	**29**	**85.29%**
Round I (11 Installations)	2	0	0	0	9	0	0	9	100.00%
Round II (5 Installations)	1	0	0	0	4	0	0	4	100.00%
Round III (3 Installations)	0	0	0	0	2	1	0	3	100.00%
Round IV (20 Installations)	2	0	2	3	12	1	0	13	72.22%
Navy (41 Installations)	**5**	**0**	**1**	**3**	**29**	**3**	**0**	**32**	**88.89%**
Round I (3 Installations)	0	0	0	0	3	0	0	3	100.00%
Round II (9 Installations)	1	0	0	0	7	1	0	8	100.00%
Round III (19 Installations)	2	0	0	1	15	1	0	16	88.89%
Round IV (10 Installations)	2	0	1	2	4	1	0	5	62.50%
Air Force (28 Installations)	**1**	**0**	**0**	**1**	**22**	**3**	**1**	**25**	**96.15%**
Round I (5 Installations)	1	0	0	0	4	0	0	4	100.00%
Round II (14 Installations)	0	0	0	1	12	1	0	13	92.86%
Round III (5 Installations)	0	0	0	0	3	2	0	5	100.00%
Round IV (4 Installations)			0	0	3	0	1	3	100.00%
DLA (4 Installations)	**0**	**0**	**0**	**1**	**3**	**0**	**0**	**3**	**75.00%**
Round I (0 Installations)	–	–	–	–	–	–	–	–	–
Round II (0 Installations)	–	–	–	–	–	–	–	–	–
Round III (2 Installations)	0	0	0	1	1	0	0	1	50.00%
Round IV (2 Installations)	0	0	0	0	2	0	0	2	100.00%
Service Totals	**11**	**0**	**3**	**9**	**81**	**8**	**2**	**89**	**88.12%**
Round I (19 Installations)	3	0	0	0	16	0	0	16	100.00
Round II (28 Installations)	2	0	0	1	23	2	1	25	96.15%
Round III (29 Installations)	2	0	0	3	21	4	0	25	89.29%
Round IV (36 Installations)	4	0	3	5	21	2	1	23	74.19%

Note: The percentage of total complete includes only reuse plans that are required.

Table A13. NEPA Completion in Relation to Reuse Plan Completion

	NEPA Complete Pre-Reuse Plan	NEPA Complete w/in 1 Year	NEPA Complete w/in 2 Years	NEPA Complete Over 2 Years	Installation Not Counted*
Army (39 Installations)	**4**	**13**	**5**	**3**	**14**
Round (11 Installations)	3	2	0	2	4
Round II (5 Installations)	0	2	1	1	1
Round III (3 Installations)	0	1	2	0	0
Round IV (20 Installations)	1	8	2	0	9
Navy (41 Installations)	**0**	**4**	**7**	**6**	**24**
Round I (3 Installations)	0	2	0	0	1
Round II (9 Installations)	0	0	1	2	6
Round III (19 Installations)	0	1	3	3	12
Round (10 Installations)	0	1	3	1	5
Air Force (28 Installations)	**4**	**12**	**5**	**1**	**6**
Round I (5 Installations)	0	2	1	0	2
Round II (14 Installations)	3	5	3	0	3
Round III (5 Installations)	1	3	0	1	0
Round IV (4 Installations)	0	2	1	0	1
DLA (4 Installations)	**0**	**2**	**1**	**0**	**1**
Round I (0 Installations)	0	0	0	0	0
Round II (0 Installations)	0	0	0	0	0
Round III (2 Installations)	0	2	0	0	0
Round IV (2 Installations)	0	0	1	0	1
Service Totals	**8**	**31**	**18**	**10**	**45**
Round I (19 Installations)	3	6	1	2	7
Round II (28 Installations)	3	7	5	3	10
Round III (29 Installations)	1	7	5	4	12
Round IV (36 Installations)	1	11	7	1	16

*Reasons for not being tallied include reuse plan date is unknown, the reuse plan is not needed or complete yet, or NEPA has not yet been completed.

Appendix B
Environmental Restoration
Site Information

Table B1. Breakout of BRAC Site Types

Site Type	Number of Sites
Aboveground Storage Tank	83
Building Demolition/Debris Removal	19
Burn Area	79
Chemical Disposal	30
Contaminated Building	296
Contaminated Fill	25
Contaminated Groundwater	108
Contaminated Sediments	105
Contaminated Soil Piles	40
Dip Tank	9
Disposal Pit and Dry Well	227
Drainage Ditch	29
Explosive Ordnance Disposal Area	47
Fire/Crash Training Area	107
Firing Range	24
Incinerator	35
Industrial Discharge	36
Landfill	375
Leach Field	19
Maintenance Yard	74
Mixed Waste Area	31
Oil/Water Separator	82
Optical Shop	1
Pesticide Shop	40
Pistol Range	13
Plating Shop	10
POL (Petroleum/Oil/Lubricants) Lines	58
Radioactive Waste Area	33
Sewage Effluent Settling Ponds	10
Sewage Treatment Plant	19
Small Arms Range	28
Soil Contamination After Tank Removal	37
Spill Site Area	755
Storage Area	527
Storm Drain	90
Surface Disposal Area	317
Surface Impoundment/Lagoon	62
Surface Runoff	20
Underground Storage Tanks	510
Underground Storage Tank Farm	37
Unexploded Munitions and Ordnance Area	49
Washrack	28
Waste Lines	110
Waste Treatment Plant	63
Other	81

Figure B1. BRAC In-Progress Site Types

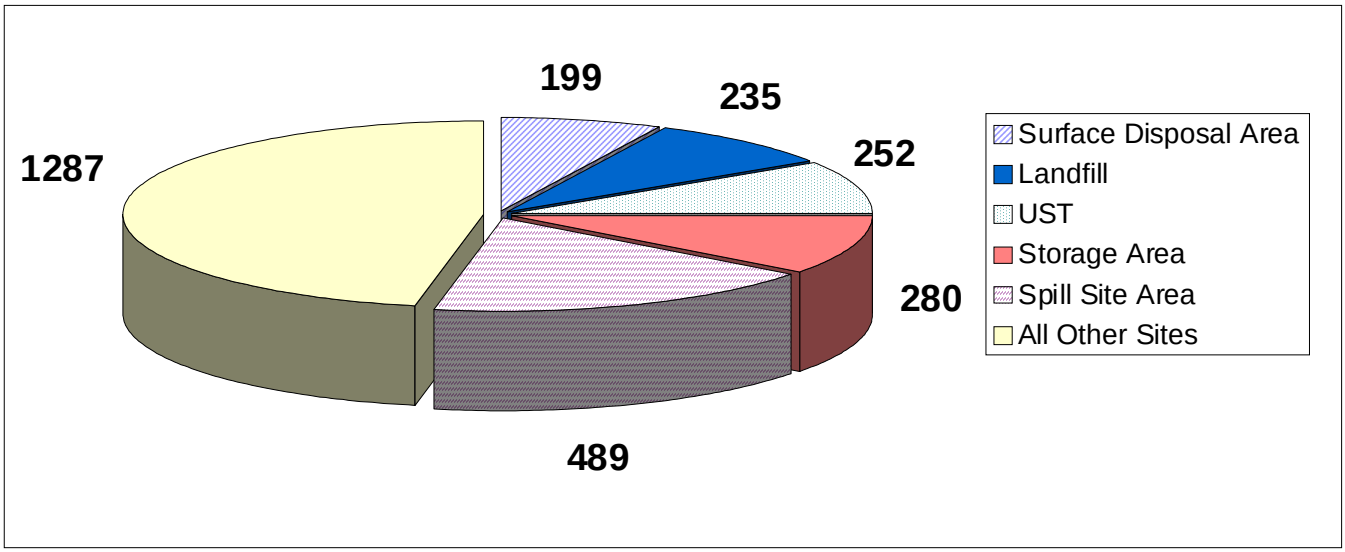


Figure B2. Active Installations In-Progress Site Types

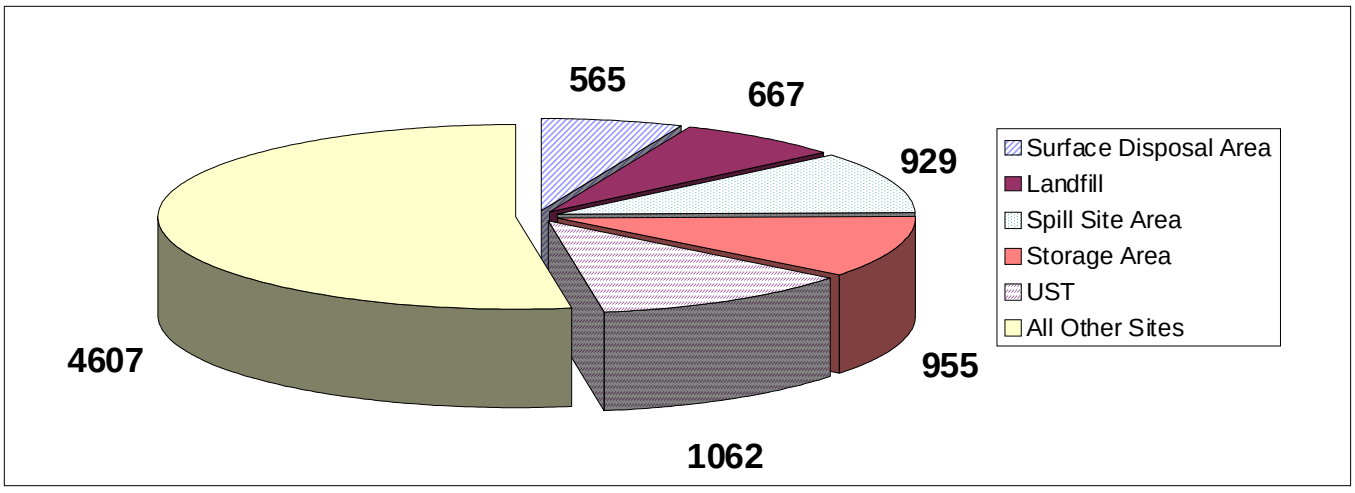


Table B2. Comparison of BRAC RC and In Progress Sites

Site Type	Total Sites	RC	% of Total	In Progress	% of Total
All Other Sites	2,296	1,009	43.95%	1,287	56.05%
Landfill	375	140	37.33%	235	62.67%
Spill Site Area	755	266	35.23%	489	64.77%
Storage Area	527	247	46.87%	280	53.13%
Surface Disposal Area	317	118	37.22%	199	62.78%
UST	510	258	50.59%	252	49.41%
Total	**4,780**	**2,038**	**42.64%**	**2,742**	**57.36%**

Table B3. Phase Activities at BRAC Installations

Phase	Completed	Under Way	Future
	Sites		
Investigation	3059	1714	7
Interim Action	855 (1,073)*	436 (535)*	0
Design	493	205	1072
RA-C	577	272	1452
RA-O	21	98	761
LTM	21	130	783

***Number of Interim Actions.**

Figure B3. Phase Status by Site Type

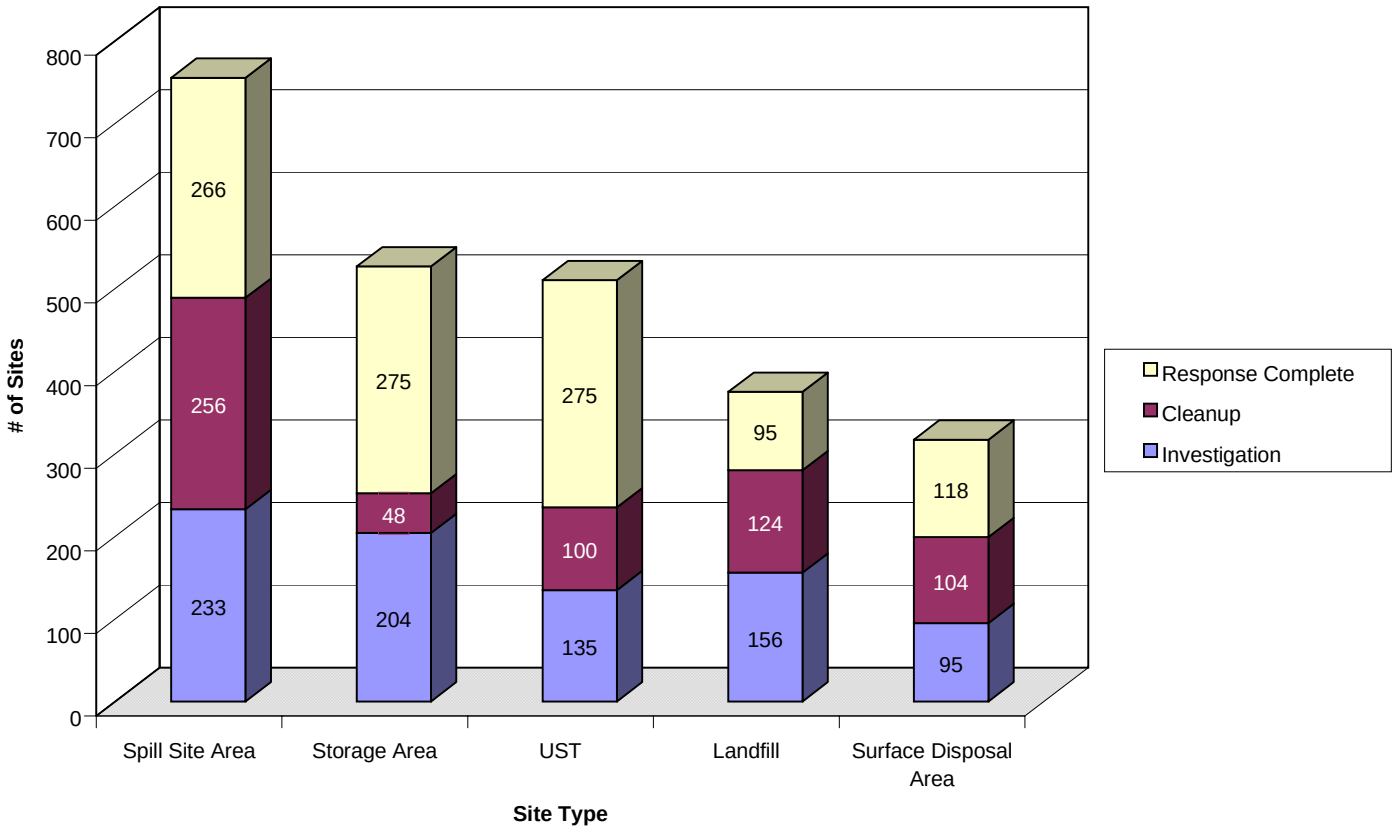


Table B4. Sites Estimated to Reach RIP/RC After FY05

ARMY (1 Installation, 8 Sites)

- Pueblo Chemical Depot (8 sites)

NAVY (7 Installations, 18 Sites)

- Alameda Naval Air Station (1 site)
- El Toro Marine Corps Air Station (3 sites)
- Hunters Point Annex (10 sites)
- Long Beach Naval Shipyard (1 site)
- Moffett Field Naval Air Station (1 sites)
- Oakland Fleet and Industrial Supply Center (1 site)
- Tustin Marine Corps Air Station (1 sites)

AIR FORCE (1 Installation, 254 Sites)

- McClellan Air Force Base (254 sites)

DLA (0 Installations)

Appendix C
Environmental Restoration
Phase Durations

The following graphs illustrate the average duration per restoration phase for sites on BRAC and active installations. The durations were computed by averaging the number of months spent per phase at each site. The first set of graphs for each Component illustrates the only the duration for each phase. The second set of graphs for each Component (with gaps) illustrates the actual duration for each phase *and* includes the lag time between the end of one phase and the start of the next phase. This set of graphs is presented for Army, Navy , Air Force, and the Defense Logistics Agency.

General trends for the Army, Navy, and DLA are:

- Phases are shorter for BRAC sites indicating quicker decision making, especially in earlier parts of the CERCLA process
- Smaller "gaps" between site identification and site investigation for BRAC sites, indicating more intense management of cleanup sites
- Design and construction work take about the same amount of time for BRAC and active sites, indicating that technical work cannot be further compressed.

ARMY

Figure C1. Army BRAC Average Phase Duration

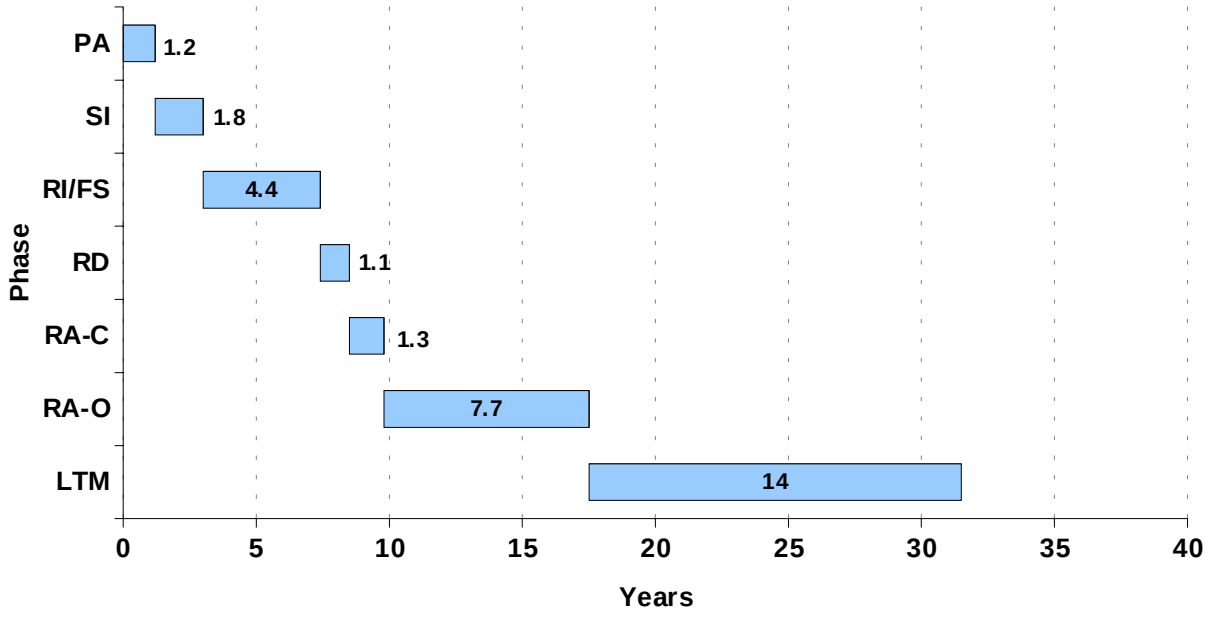


Figure C2. Army Active Installations Average Phase Duration

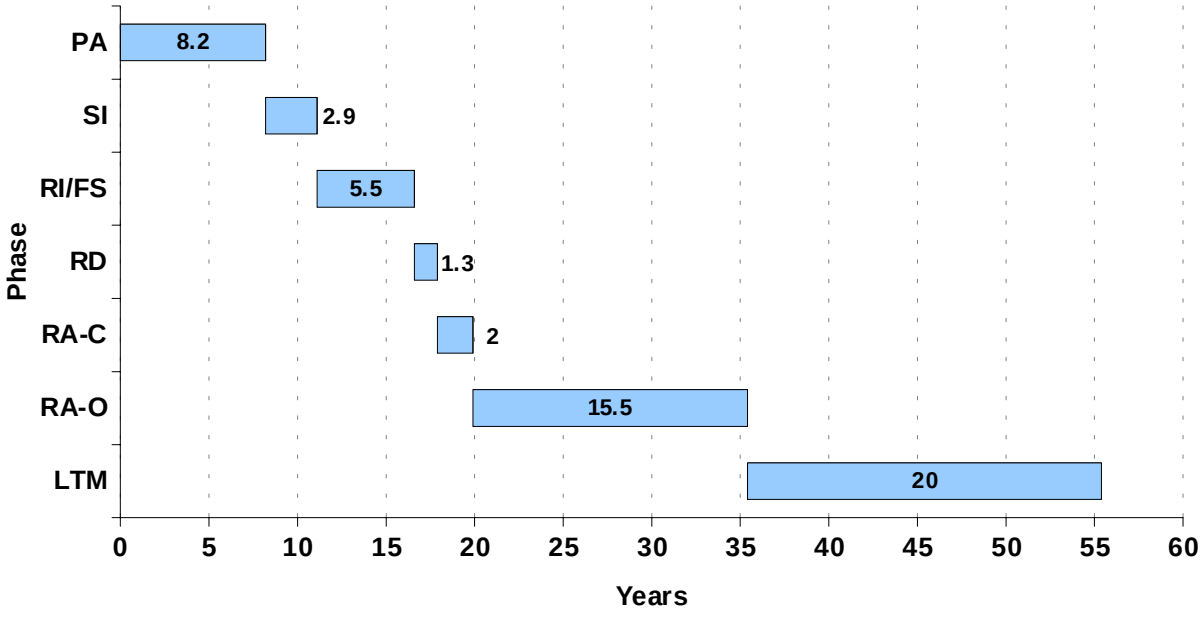


Figure C3. Army BRAC Average Phase Duration (with gaps)

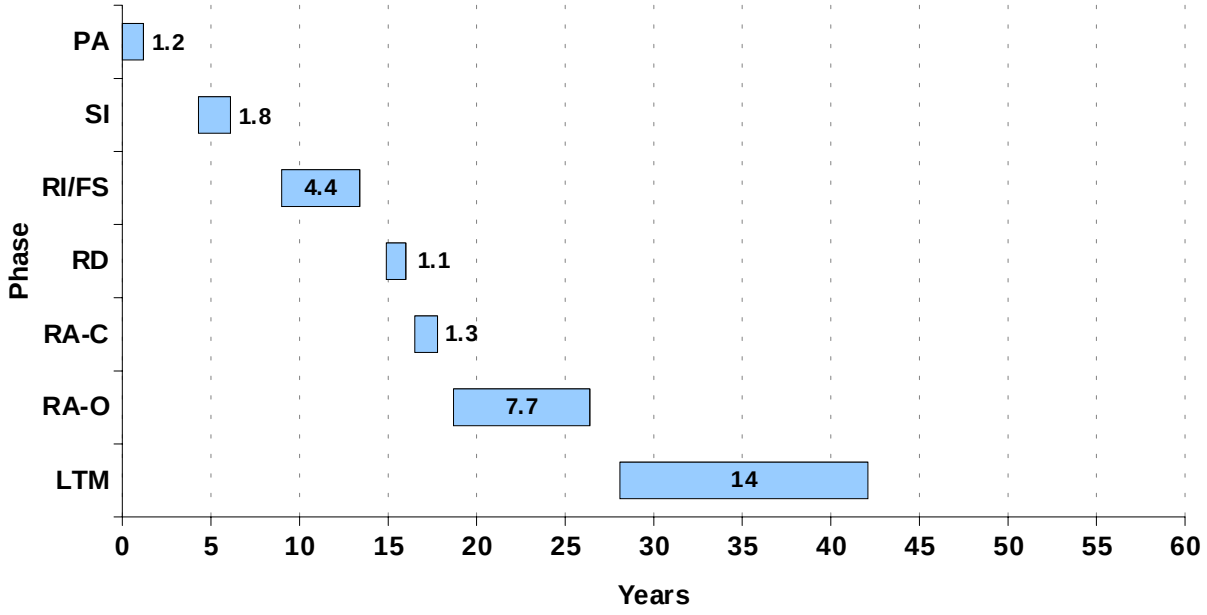
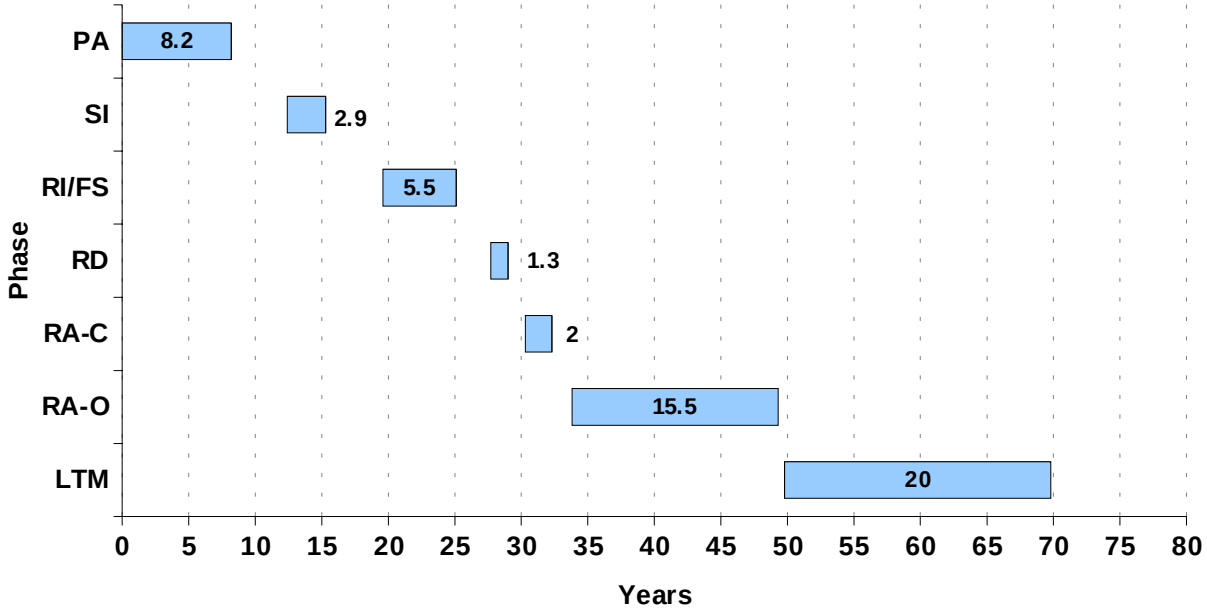


Figure C4. Army Active Installations Average Phase Duration (with gaps)



NAVY

Figure C5. Navy BRAC Average Phase Duration

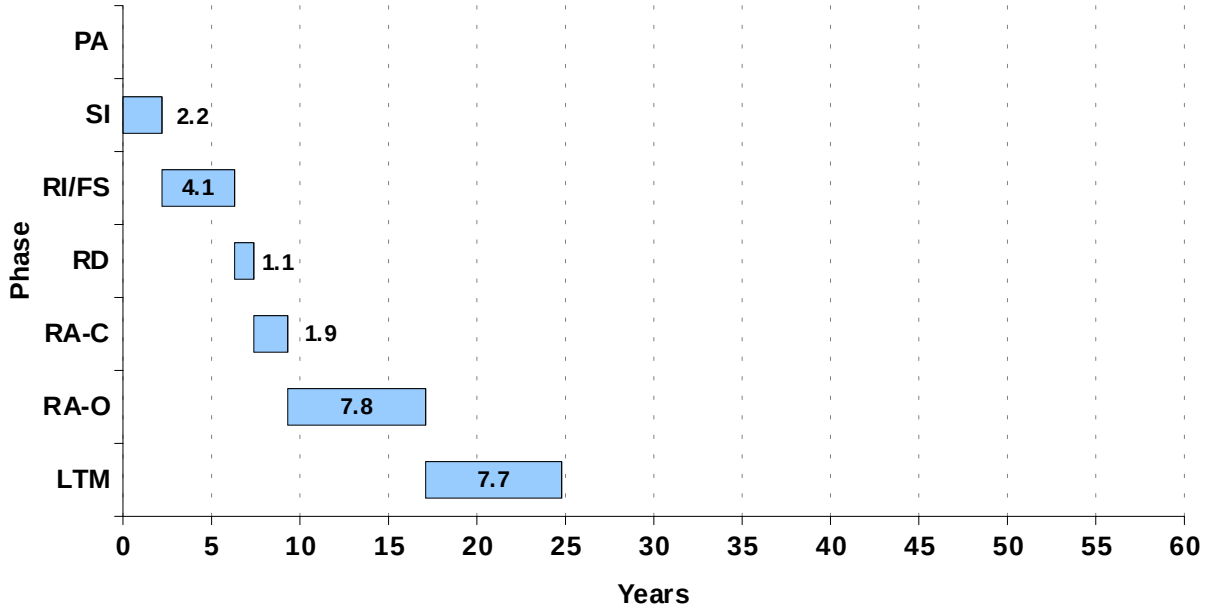


Figure C6. Navy Active Installations Average Phase Duration

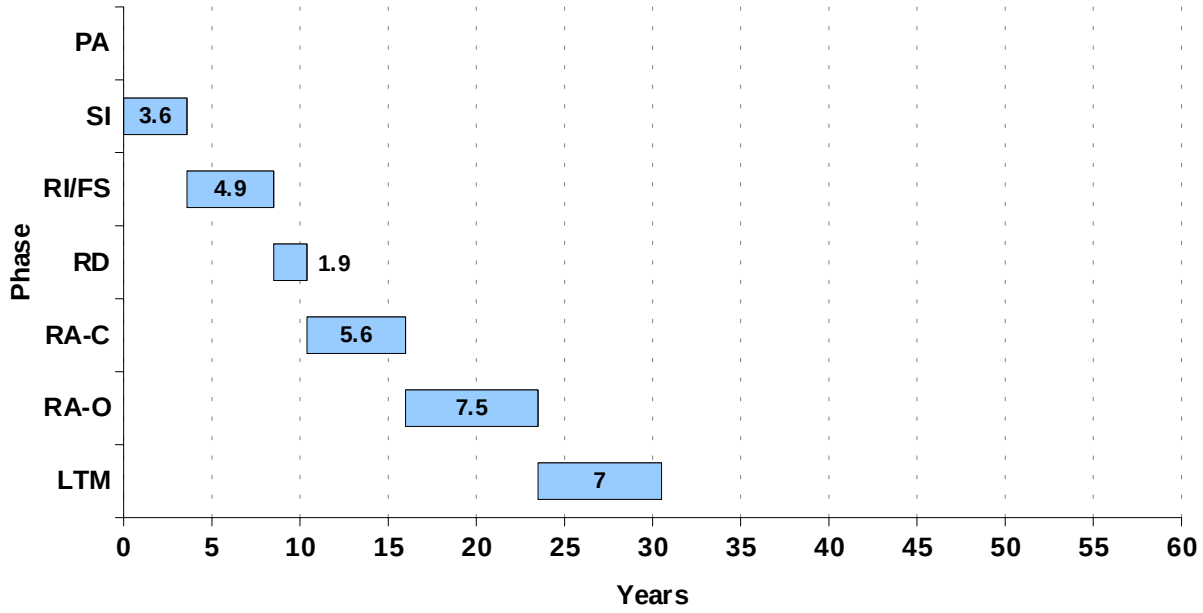


Figure C7. Navy BRAC Average Phase Duration (with gaps)

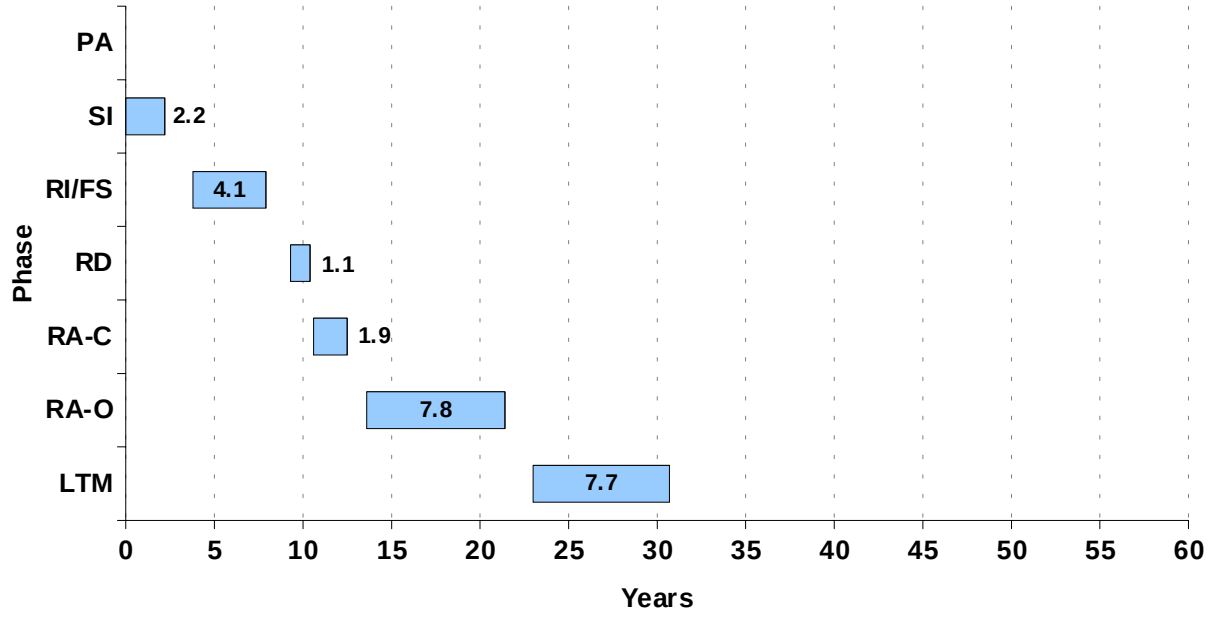
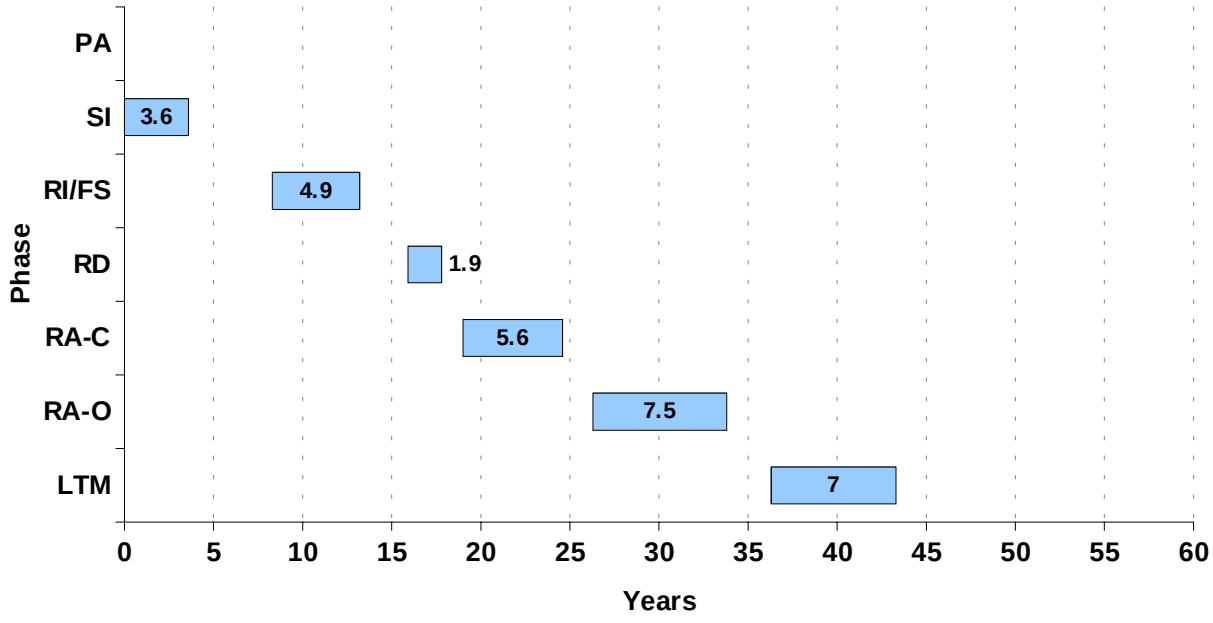


Figure C8. Navy Active Installations Average Phase Duration (with gaps)



AIR FORCE

Figure C9. Air Force BRAC Average Phase Duration

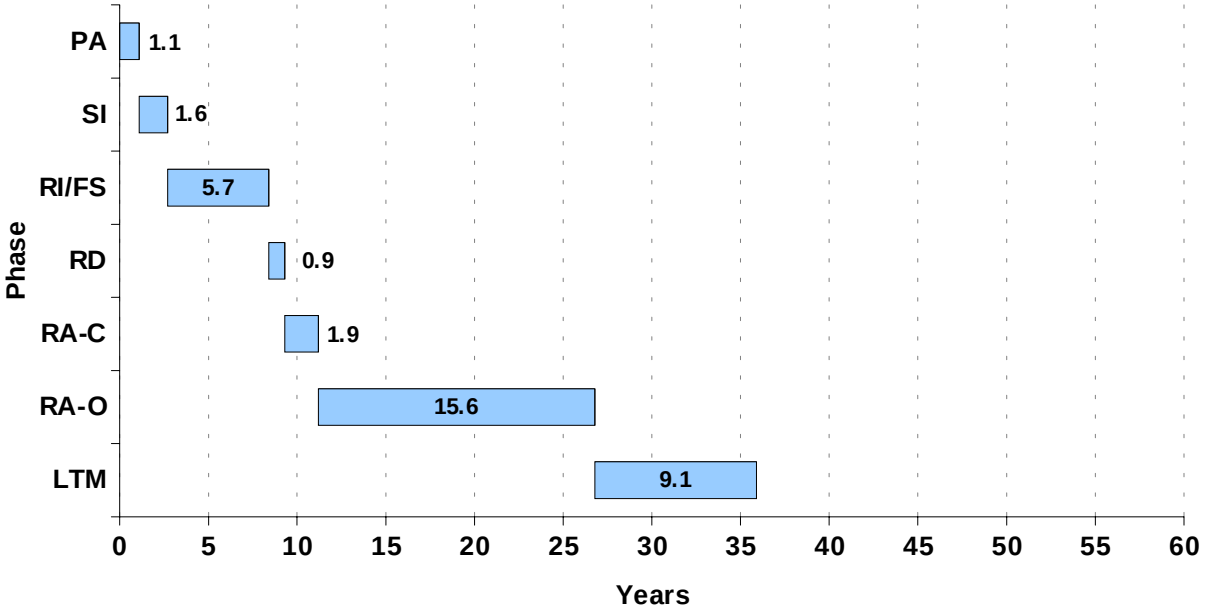


Figure C10. Air Force Active Installations Average Phase Duration

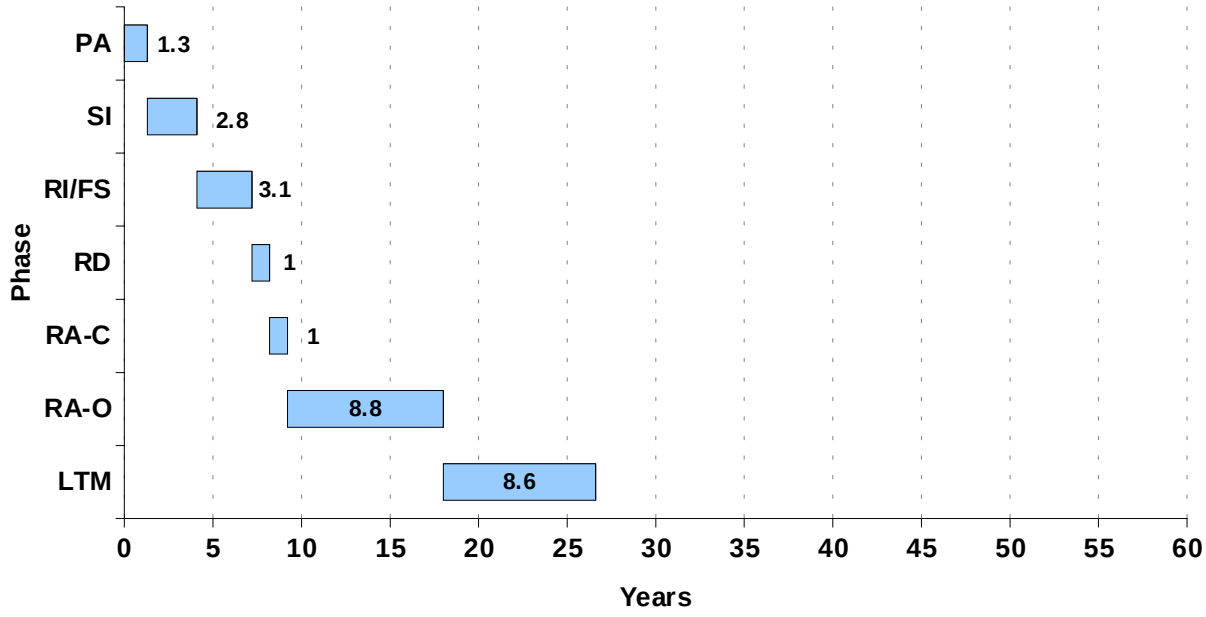


Figure C11. Air Force BRAC Average Phase Duration (with gaps)

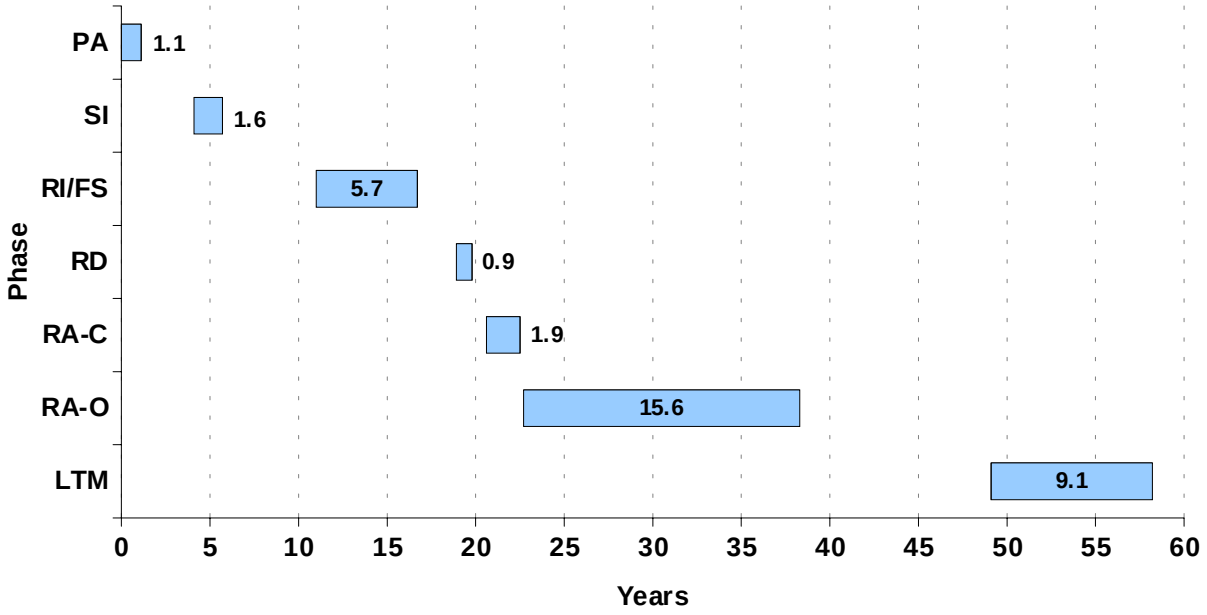
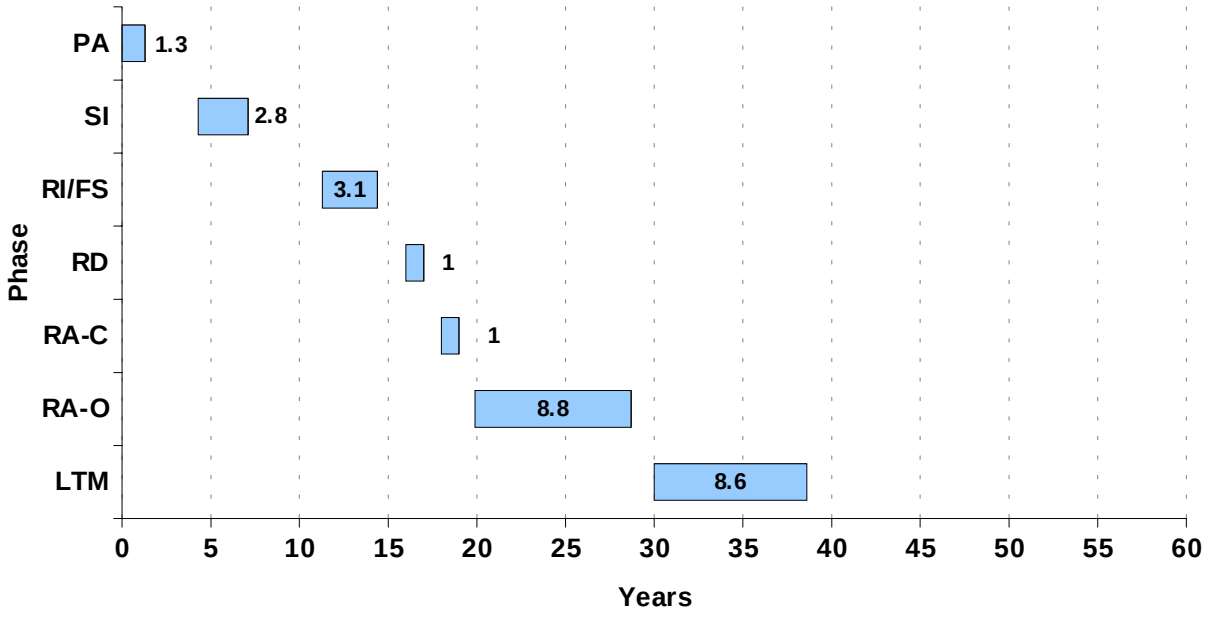


Figure C12. Air Force Active Installations Average Phase Duration (with gaps)



DLA

Figure C13. DLA BRAC Average Phase Duration

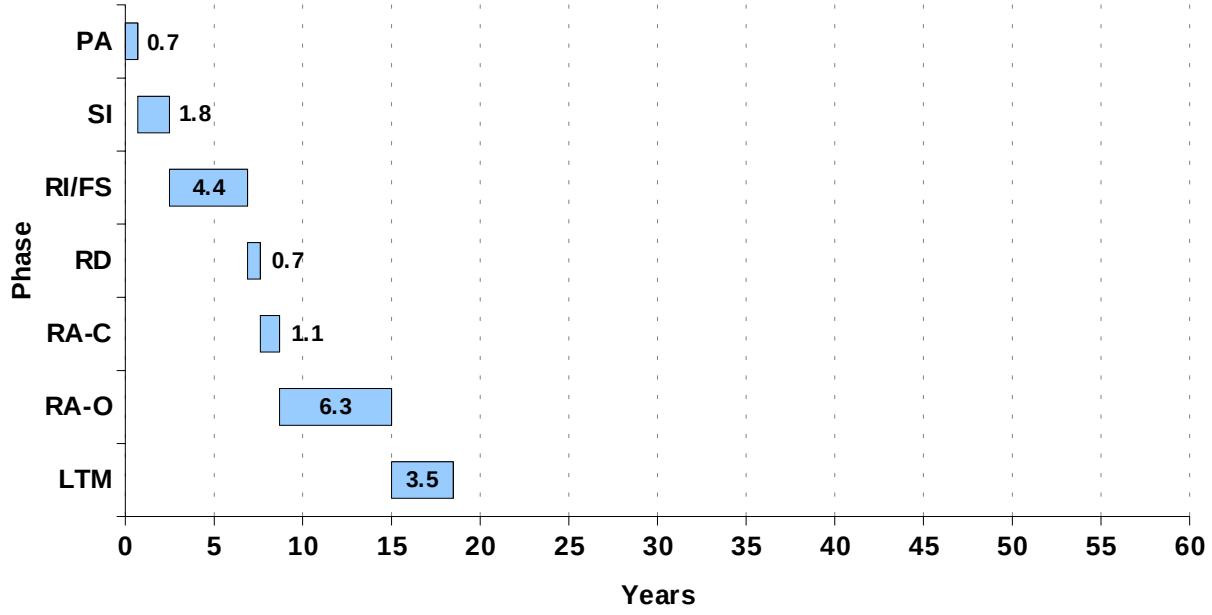


Figure C14. DLA Active Installations Average Phase Duration

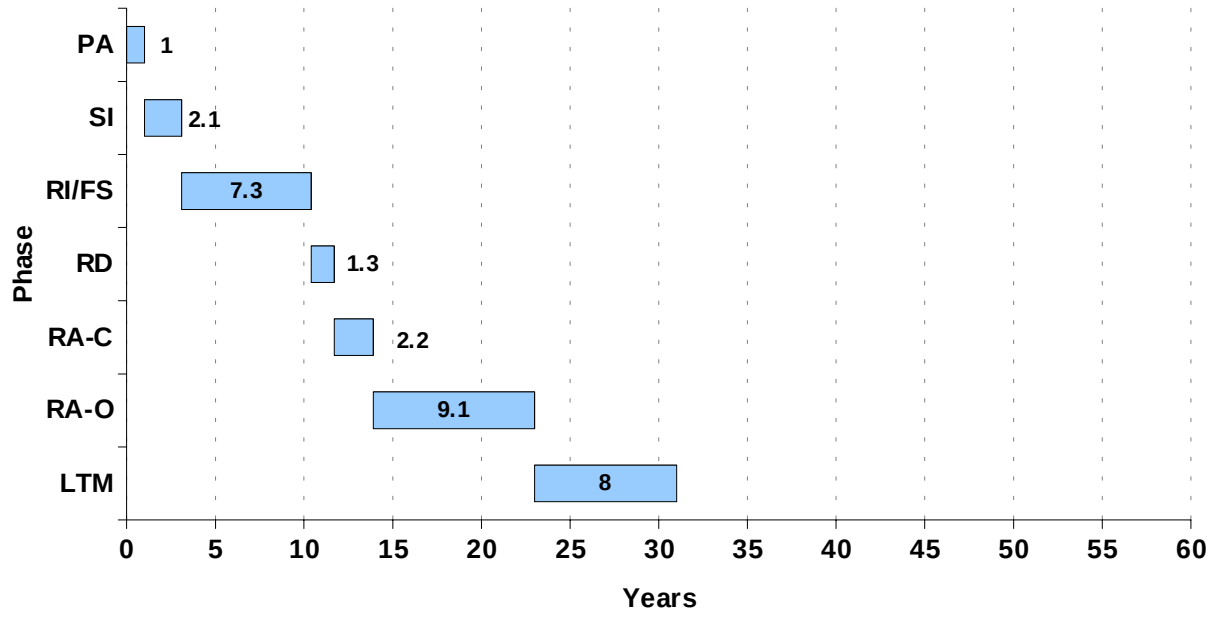


Figure C15. DLA BRAC Average Phase Duration (with gaps)

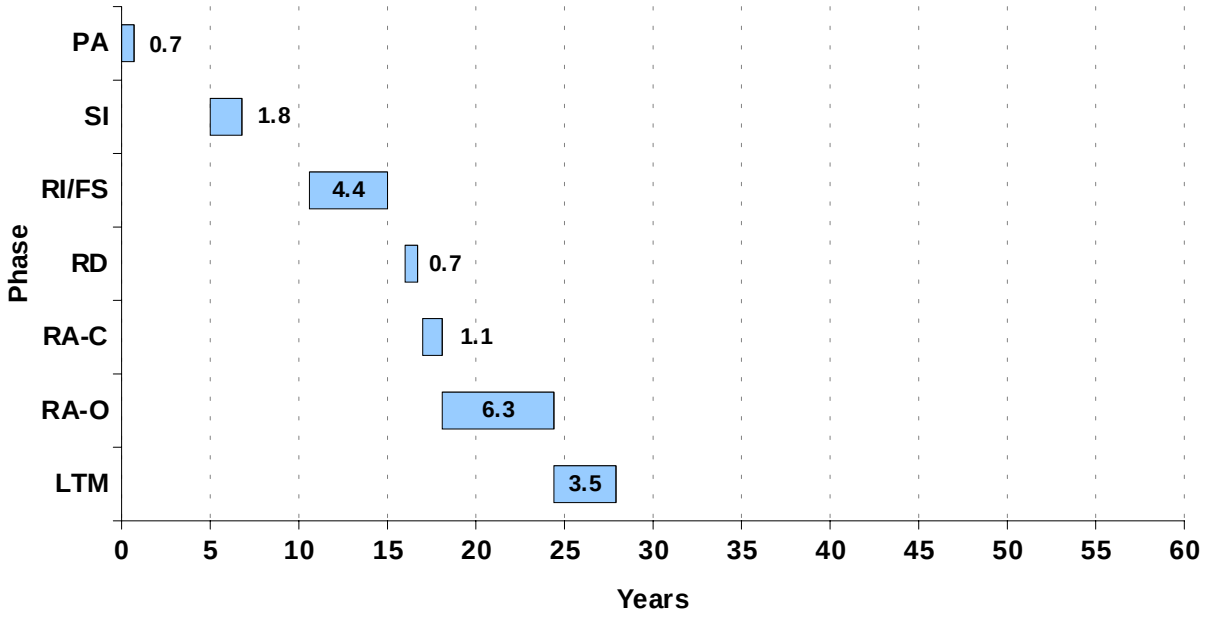
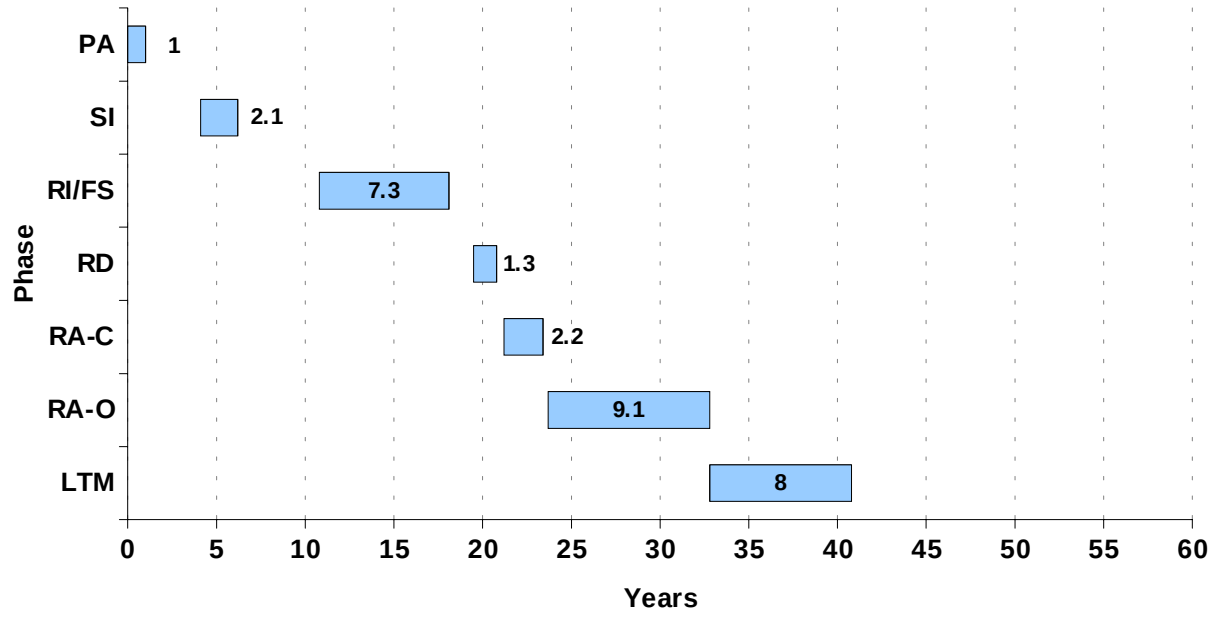


Figure C16. DLA Active Installations Average Phase Duration (with gaps)



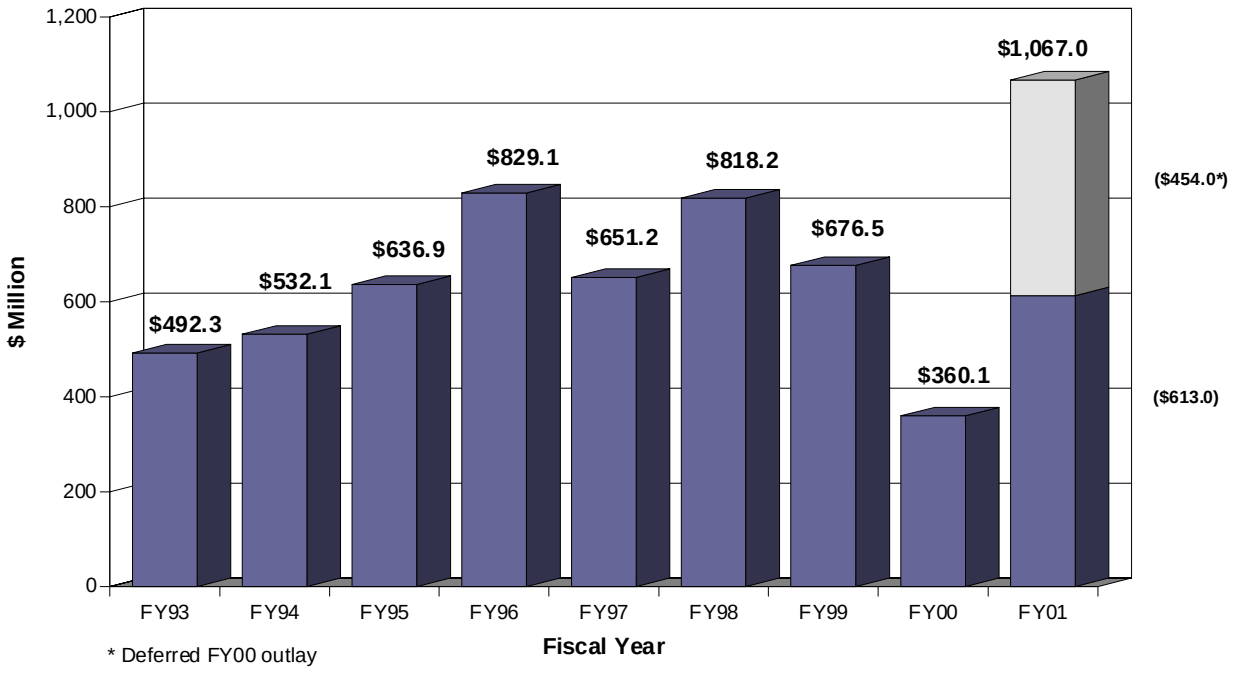
Appendix D
BRAC Funding

BACKGROUND

Closure-related BRAC environmental activities are funded from the overall BRAC account that funds all BRAC related requirements. BRAC environmental funding encompasses more than environmental restoration efforts; it also addresses closure-related environmental compliance, environmental planning, and program management and support. The BRAC account, in turn, is part of DoD's overall Military Construction appropriation. To ensure maximum flexibility, and in keeping with management of the Military Construction account, BRAC funding is provided in 5-year appropriations and funds are not fenced for a specific BRAC activity. Since however, FY96, Congress has specified an upper funding limit, or ceiling, for BRAC environmental funding.

BRAC environmental funding has increased over the years with the addition of installations in each new BRAC round. The funding peaked in FY96 with the addition of BRAC 95 installations. Annual environmental allocations are set by balancing environmental requirements with other BRAC-related requirements. Environmental funding needs have also varied year-to-year, as installations from each round have completed closure-related compliance and planning activities and have moved from studies to cleanup. Figure D1 shows actual and projected total environmental funding allocations from FY93 to FY01.

Figure D1. BRAC Environmental Budget Funding Profile



CURRENT STATUS

Table D1 breaks down the BRAC FY98 funding totals by Component. As can be seen in the table, most of the BRAC environmental investment is for environmental restoration. A majority, if not all, of future BRAC environmental requirements is expected to be cleanup related.

Table D1. BRAC FY98 Funding ($M)

	Cleanup	Compliance	Planning	Administration	Total
Army	133,948	29,941	–	20,454	**184,343**
Navy	212,769	90,186	6,603	32,695	**342,253**
Air Force	137,891	80,958	4,669	32,958	**256,476**
DLA	8,978	469	43	1,386	**10,876**
Total	**493,586**	**201,554**	**11,315**	**87,493**	**793,948**

FUTURE FUNDING CHALLENGES

As environmental restoration activities are completed, DoD expects future funding requirements to decline. The estimated cost to complete for remaining environmental restoration (exclusive of UXO clearance) at current BRAC sites after FY01 is about $1.9 billion. Future funding of BRAC environmental efforts, however, does face three specific challenges:

- *FY00 funding.* To better manage cash flow in the overall Military Construction account – where BRAC requirements are funded – the FY00 President's Budget request asks for full authorization of requirements but not full appropriations. The remainder of the funding is being requested as advanced FY01 appropriations. This change will align funding with outlays in the overall Military Construction account. For BRAC environmental funding, it means that DoD is seeking authorization of $814 million and appropriations of $360 million for FY00; the remaining $454 million is being sought as advanced FY01 appropriations. With intensive management, this one-time change in business practice is expected to have a minimal impact on environmental restoration work and project schedules.

- *Expiration of the current BRAC account in July 2001.* The current BRAC account, the sole source of environmental restoration funding for BRAC installations, is set to expire on July 13, 2001, with expiration of the implementation period for BRAC 95. In response to a congressional request, DoD has prepared a legislative proposal for a post-FY01 "BRAC Environmental Restoration Account" to provide a continuing funding source for cleanup of the existing BRAC installations. DoD's current guidance already calls for post-FY01 environmental requirements to be programmed and budgeted in the account appropriate to the type of work to be performed. Regardless of the approach, an adverse budgetary impact is not expected since post-FY01 environmental restoration funding has been planned and programmed and can be rolled into the account for post-FY01 activities.

- *Accounting for UXO clearance as a restoration cost*. Management of abandoned munitions and UXO on transferring ranges is a major challenge for DoD. DoD is committed to taking appropriate measures to adequately and appropriately control risks to human safety posed by UXO. Currently, only the Formerly Used Defense Sites program budgets for UXO as an environmental restoration requirement. However, DoD is incorporating policy changes to require Components to program and budget UXO clearance at closed, transferring, and transferred ranges beginning in FY01. DoD does not expect this change to have a major impact on UXO clearance at BRAC installations, as these costs have been included as a BRAC closure-related compliance investment within BRAC environmental requirements.